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Abstract

Materials collected in this book and in Volume II (SP 003 239) are outgrowths of the Multi-State Teacher Education Project (M-STEP), a 3-year program to strengthen the capacity of state departments of education in the development of joint responsibility between local education agencies and teacher education institutions with emphasis on laboratory experiences in elementary and secondary schools. Part 1, "A Seven-State Program at work," includes (1) a brief portrayal of M-STEP's origin and purposes; (2) case studies of the seven state projects in Florida, Maryland, Michigan, South Carolina, Utah, Washington, and West Virginia; and (3) "Adventures with Laboratory Experiences," a synthesis of M-STEP practices, problems, and new patterns. Other chapters are papers produced by the individual projects or for use in them: "A Position Paper on Student Teaching Programs"; "Innovations in Student Teaching--A Directory of Recent Action," a national listing by state and by innovation type; a description of "The Individualized Teacher Education Program at Brigham Young University," including behavioral objectives; "Emerging Roles of Supervising Teachers--A New Staff Level"; "Microteaching and Interaction Analysis in a Teacher Education Program," a program description; "A Teaching Behavior Code"; guidelines for "Developing a

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TEACHER EDUCATION IN TRANSITION

VOLUME I, AN EXPERIMENT IN CHANGE

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Johnson. *A National Survey of Student Teaching Programs.* July, 1968

Staff. *Selected Materials from M-STEP.* October, 1968

Johnson. *Innovations in Student Teaching.* October, 1968

Bosley (Ed.) *Video Processes in Teacher Education Programs: Scope, Techniques, and Assessment.* September, 1968

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FOREWORD

The Multi-State Teacher Education Project was designed to find ways to improve teacher education. Specific plans toward this end were developed by the project designers, who represented seven state departments of education and the United States Office of Education, and were approved by the United States Commissioner of Education on March 10, 1966. During the years which followed, implementation of project plans led the states into numerous exciting avenues of exploration and experimentation. The project operation involved staffs of the state departments of education, scores of colleges and universities which prepare teachers, numerous local school systems, and many professional organizations of teachers, all in a cooperative partnership relationship sponsored by each state department of education in accordance with the built-in design and philosophy of the original compact. The project was extremely fortunate to receive both the interest and the services of hundreds of top-level specialists from these four resource groups, both from inside the seven states intensively and from other states.

Inasmuch as the project was conceived as an action system, production of written materials has not been considered a major purpose. Nevertheless, the array of written materials released by the project during its three-year term has circulated by request to all fifty states of the U.S. and to many foreign nations.

In the first section of Volumes I and II of *Teacher Education in Transition*, an attempt has been made to briefly portray the project's origin and purposes, and at greater length to explain its activities and outcomes, with some projection of probable effect on the future of teacher education in the project states in the years after termination of the M-STEP on June 30, 1969. Part II of each volume contains treatments of topics which have been outgrowths of the project or contributory to it. It is believed the volumes may possess significance for teacher education in America.

Howard Bosley, Director

May, 1969

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PART I -
A SEVEN-STATE PROJECT AT WORK

Chapter I

Introduction

IT is undoubtedly true that systems of planned invention, cooperative effort on the part of specialists, and effective means of intercommunication constitute major items in the progress formula for successful lines of endeavor in the modern world. To this principle, the field of education would seem to be no exception. Educators recognize change as a powerful goal. Their professional and operational proximity to educational and social needs tends to render this outlook inevitable. By the same token, there is an increasing demand for newly designed systems which isolate and define existing and emerging needs, and for the invention of new procedures for meeting these needs. Conceivably, the project which is described in various sections of the current volume resulted from a climate which is increasingly receptive to change.

Moreover, it must be said that creation of M-STEP resulted from the convergence of several conditions and events into a contemporary time pattern. Generally speaking, these include (a) a near universal desire on the part of professionals to intensify the search for improved programs in teacher preparation, (b) a generally recognized desire of state departments of education to strengthen their roles in teacher education, (c) cumulative development and progress in many disciplines which undergird professional teacher education, (d) recent developments in the field of visual and auditory communications, and (e) the advent of Federal interest in and financial support of plans designed to strengthen American education.

Recognizing the role of education as a primary agent in the entire change process, the 89th Congress of the United States enacted Public Law 89-10, the Elementary and Secondary Education Act of 1965. Title V, Section 505 of this Act provides for special grants "to State educational agencies to pay part of the cost of experimental projects for developing

State leadership or for the establishment of special services which, in the judgment of the Commissioner, hold promise of making a substantial contribution to the solution of problems common to the State educational agencies of all or several states." Fiscal support provided by this law made the formation of M-STEP possible.

M-STEP GOALS

Those who wrote the original plan for the Multi-State Teacher Education Project expressed in a single sentence something very close to the entire aim and scope of project effort. A review of the aims expressed in the first paragraph of Section A, Item 11 of the application, seems pertinent at this point.

> To strengthen the capacity of state departments of education . . . in the development of joint responsibility between local education agencies and teacher education institutions . . . with emphasis on laboratory experiences in elementary and secondary schools.[1]

". . . state departments of education . . ."

It is a known fact that all projects funded under Title V of the Elementary and Secondary Education Act of 1965 (Public Law 89-10) were expected to strengthen state departments of education. Basically also was the fact that the designers of M-STEP embraced the notion that state education agencies occupy a unique position in their respective states to assume leadership roles in teacher education, and that these roles extend well beyond currently accepted functions of teacher certification, evaluation, and approval of teacher education programs. The new concept embraces partnership, participation in planning processes, services, and other forms of assistance.

The story of the three-year federally financed project reveals evidence of state and interstate cooperative action which has brought this goal to a functioning reality.

". . . joint responsibility between local education agencies and teacher education institutions . . ."

The assumption of joint responsibility by local school districts and institutions which prepare teachers in the cooperative development of improved programs, while not a new concept in American teacher education, is one which should have strong consideration by planning groups. New plans need coordination, intensive trial, evaluation and redirection. M-STEP designers believed education agencies and professional organizations can give significant leadership and assistance in this direction. The joint responsibility concept bids fair to extend its influence at an accelerated pace into the years ahead.

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[1] From Project Application, February 25, 1966.

". . . with emphasis on laboratory experiences . . ."

Experimentation with professional laboratory services* in elementary and secondary schools has constituted a major thrust of the project. The direction taken by this effort, and its significant outcomes, will be the theme of the narrative of later chapters.

* * * *

Sessions of the Project Planning Board during February, 1966, sharpened the definition of objectives, and effected a clear-cut division of labor among the seven states of the Compact.

Excerpts from the February 25, 1966 proposal follow, showing aims and commitments of the states:

Florida. Provide appropriate inservice educational experiences in those areas of the curriculum which are relatively new to the school program. . . . Assume a leadership role in improving preservice programs for professional personnel. . . .

Maryland. Assume leadership in embarking on a cooperative project with the College of Education of the University of Maryland and a local education agency to establish a Teacher Education Center for laboratory experiences.

Michigan. Assume leadership in eliciting regional agreements regarding standards for student teaching programs and . . . the cooperative administration of such programs on a regional basis by colleges and local education agencies in selected centers.

South Carolina. In cooperation with the states of Utah and Maryland, develop a series of television tapes designed to improve student teaching programs.

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*The term "laboratory experiences" was accepted by the Compact as an umbrella concept embracing all direct experience learnings, including clinical aspects of teacher preparation which would be likely to evolve during the project term.

Utah. Assume a leadership role in conducting pilot studies for the improvement of preservice and inservice laboratory experiences. Produce instructional media for improving student teaching and other laboratory experiences.

Washington. The project is designed to increase the state education agency's effectiveness in developing a statewide education program which reduces the gap between preservice preparation, initial teaching experience and advanced study . . . the provision of conditions and services most conducive to the completion of the preparation of the beginning teacher for career service.

West Virginia. In order to develop a coordinated student teaching program on a statewide basis, it is proposed that a pilot student teaching center be established and administered under the direction of the State Department of Education. The responsibility of the State Department of Education will be shared by the local school agency and institutions approved for teacher preparation.

Statewide Cooperation as an M-STEP Goal

The concept of statewide planning, and the nature of the basic law which supported the project, gave rise to statewide cooperative effort in developing teacher education programs, and led to the establishment of state M-STEP organizations which are described in Chapter 2.

The M-STEP concept of statewide programs by no means embraces the idea that state departments of education will control or dominate the program planning processes in teacher education. Rather, existing rationale accepts the philosophy that every state has extensive professional resources in its colleges, its universities, its schools, its professional organizations, and its state department of education.

These resources exist in the form of competent professional personnel, who, as a usual practice, have found their influence somewhat restricted to their own campuses or other limited areas of operation. Thus, a score or a hundred agencies vitally interested in teacher education may exist within a state, each operating with far less communication with its professional neighbors than it desires. Moreover, each institution is likely to feel almost powerless to effect any continuing form of interagency flow of ideas or to initiate plans for interinstitutional effort toward the development of effective programs for the preparation of teachers.

Admittedly, in typical states this isolation is broken by intrastate professional meetings and deliberative sessions of significance. A dominant need exists, however, for some form of intrastate organization which brings together representatives of the state's teacher preparation agencies into an effective and continuing intermediate or long-term relationship. Organizations of this type represent effective attempts to utilize professional resources wherever they can be found. A further aim attempts to create, through the process of group thinking, a structure whose "group mind" inevitably is more productive than individual minds working alone or in small groups. Committees of professionals, selected on a statewide basis, can effectively supplement the planning and development processes which occur in departmental staff meetings on college campuses.

It would seem that an effective role of the state departments of education is one of partnership and cooperation with other state agencies which can benefit teacher education, rather than an application of older regulatory and control functions. Probably, for many states, this broadly based partnership plan is more of an extension and elaboration of earlier beginnings than an assumption of a new philosophy and procedure. In any event, M-STEP action has seemed to accentuate, and even initiate, a movement of state departments of education into the mainstream of professional effort in teacher preparation. Whether its presence in the state is novel or is adapted and strengthened from existing patterns, strong potential for improvement of teacher education exists in the movement.

The Concept of Interstate Cooperation

Cooperative interstate action and interstate diffusion of innovations on a non-regional and non-provincial basis constituted the major reason for inviting into the M-STEP program states from widely divergent geographic regions. States of the Compact were thought of as available resources for action.

The existence of the project was based on the expectation that the seven states could accomplish more by working together than by working alone. Inherent both in regulations affecting the implementation of Section 505 projects in Title V of Public Law 89-10, and in the early action of the Planning Board, the interstate nature of the Compact received emphasis.

In part, the February 25, 1966 application states the concept as follows:

> The multi-state nature of the proposed project is itself an innovation. By pooling resources and cooperating in pilot programs, it is hoped that a new dimension in the potential of state depart-

ments of education will emerge.[2] *

In brief, the M-STEP design which evolved through cooperative action late in 1965 and early 1966 embraced an avowed attempt to find new directions, even new horizons, in teacher education. Major thrusts of this effort were planned to move in specified directions.

- Toward an increased sensitivity in state departments of education to new roles of responsibility in teacher education, which responsibility transcends the certification of educational personnel and the evaluation or approval of programs in colleges and universities.
- Toward unique and indigenous statewide systems which utilize existing professional talent for a continuing analysis of needed changes and for planning and implementing desirable innovations. It was expected that representatives of school, university, and state education agency staffs would participate in the planning and implementation processes.
- Toward a major concentration of project effort on new designs for statewide improvement in that phase of teacher preparation variously referred to as professional laboratory experiences, clinical experiences, or somewhat more narrowly, as student teaching.
- Toward intensive experimentation in the uses of television and video processes as aids to professional learning.
- Toward accelerated utilization of available intra-compact and extra-compact professional resources as aids to development of preservice and inservice programs in teacher education.
- Toward experimentation in effective means of communication between and among professional personnel on an interstate basis.

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[2] Item 11, Paragraph 5, of M-STEP Application of February 25, 1966.

*Further elaboration of the emerging climate in which the M-STEP Compact had its beginning will be found in the Appendix "Toward a Compact of States."

Chapter II

State Organizations for Teacher Education - Case Studies of State M-Step Projects*

IT is especially significant that under Public Law 89-10 all projects funded by Title V were necessarily geared toward strengthening state departments of education. Moreover, a basic concept of the M-STEP planners embraced the thought that state education agencies are in a unique position to bring together the total resources of their respective states in a cooperative effort to benefit teacher preparation. This project viewpoint, which sometimes appears in M-STEP literature as "statewide programs for teacher education," was expressed in the original proposal as a goal statement "To strengthen the capacity of state departments of education . . . in the development of joint responsibility between local education agencies and teacher education institutions in the preparation of professional personnel."[1]

Committees of Professional Personnel Serve as Agents of Change

In designing a structural organization intended to function as a coordinating group for a state's teacher preparation agencies, any one of several approaches could have been made. Having clearly in mind the goal of the compact, the project designers were expected to evolve an effective plan for the development of an organization which would operate best in each state. It would be fair to say that in the minds of the planners from the seven state departments of education the desire for individual state identity was matched by an enthusiasm for progress in the improvement of teacher education, and by a strong desire on the part of dedicated professionals to think together, to plan, and to create cooperatively.

---

*Project Director and Staff.

[1] *Project Application* February 25, 1966

If improvements were to be made in teacher education programs within the states of the newly formed Compact, it seemed axiomatic that professional personnel in the states' educational institutions and agencies should serve as resources for planning and initiating change. It seemed necessary that means should be provided whereby institutional representatives of each state's agencies which prepare, certificate, employ, and guide the welfare of teachers should participate equally in the process of developing designs for improvement.

With this in mind, tasks needed to be outlined and desirable changes required definition. Weaknesses needed to be assessed, and strengths analyzed. Means, both for overcoming weaknesses and building upon existing strengths, clamored for creative treatment.

New ways had to be found to utilize existing professional talents, wherever those talents were located. Those who created M-STEP probably thought the most potent and effective source of development lay in the process of group planning and interaction within the seven states. In a real sense, the M-STEP task became one of harnessing existing professional forces for purposes of deliberate invention and development.

A distinct characteristic of intrastate organization in the project has involved the creation of several new state-wide committees which volunteer their professional knowledge and experience to assist in the improvement of teacher education. Some of these groups were established prior to M-STEP, and the existence of the project only served to focus renewed interest on this aspect of educational planning. Other committees are completely new and, having provided valuable service to M-STEP states, should continue meeting the needs of local teacher education on a permanent basis. Membership lists of these advisory committees include prominent teacher education authorities within each member state.

In facilitating the cooperation of institutions and agencies within the M-STEP states, the initiative has been taken by appropriate personnel in state departments of education and by practicing teacher educators. These specialists have been highly cooperative, and generous with their time and energies. The number of colleges and universities, local school systems, and professional organizations involved in the total M-STEP program, either directly, or indirectly, is impressive.

STATE ORGANIZATIONS

Fundamentally, it would seem that M-STEP has evolved a concept of development and a variety of state plans whereby teacher education institutions and agencies within the state can combine their strengths and martial their professional potential toward accelerated in-depth achievement. M-STEP may also have created significant organizational prototypes which can prove beneficial to other states and regions.

The current chapter will attempt to identify a variety of state organizations which have been created in the M-STEP Compact for the improvement of teacher education. It is expected that time will continue to justify their existence as change agents in a creative process.

The reader will note that these organizations have been activated at the initiative of the respective state departments of education as a part of the M-STEP process, and that they function as cooperative enterprises between and among each state's colleges and universities, local schools, and the state department of education. The fact should also be noted that the seven state organizations which have participated in the project were planned and developed by top level administrative staff in the respective state departments of education. In each of the M-STEP states, the administrative structure which evolved, and the operational plan and policies were approved by the state board of education.

M-STEP in Florida

IN Florida, the intra-state M-STEP goal is the improvement of teacher education through encouraging dynamic communication and cooperation among existing institutions, agencies, and organizations. A fundamental element in progressing toward this goal is the increased capabilities of the State Department of Education to make significant contributions to this communication. Through M-STEP, the Florida State Department of Education has been able to contribute information not previously accessible to improve decision making. This information resulted from studies conducted within the Department and from resource persons secured from outside the state.

The Role of the Florida State Department of Education in Teacher Education

The role of the State Department of Education in teacher education has as its basis the *Florida Statutes*. The Statutes not only permit the State Superintendent to exercise leadership in teacher education but place the mantle of leadership on his shoulders. A bill recently enacted states that "the State Superintendent of Public Instruction shall as rapidly as feasible expand the capability of the State Department of Education in planning the state's strategy for effecting constructive educational change, providing and coordinating creative services necessary to achieve greater quality in education." (Senate Bill 70-X, 1968, special session.)

The State Superintendent of Public Instruction serves as the executive officer of the State Board of Education. The responsibilities of the State Board of Education in teacher education are presented in the Statute as follows:

> To provide such minimum standards and rules and regulations as are required by law or as are recommended by the State Superintendent . . .

> to prescribe minimum standards including minimum curricula for the education of personnel engaged in public school work in the state; to prescribe standards and to approve institutions both within and without the state for purposes of certificating administrative and instructional personnel for the public schools, and to prescribe standards and regulations as it may find desirable to aid in carrying out the purpose and objectives of the school code." (Section 229.061 [19], F.S., 1967.)

The State Superintendent fulfills his responsibilities in teacher education through both regulatory and leadership activities. He recommends to the State Board of Education such regulations as are deemed fundamental to the establishment and enforcement of minimum standards. Once regulations have been adopted, the Superintendent is responsible for administering them. Through leadership activities, the Superintendent attempts to encourage the development of programs which exceed the minimum standards. (The necessary authority for carrying out these functions is granted by Section 229.511, F.S., 1967.)

The State Superintendent calls upon the staff of the State Department of Education to assist in both the regulatory and leadership functions. It is for this specific type of assistance that the Department was created:

> The State Department . . . shall operate under the direction and control of the State Superintendent and shall assist him in providing professional leadership and guidance, and in carrying out the policies, procedures, and duties authorized by law or by the State Board or found necessary by him to attain the purposes and objectives of the school code. (Section 229.76, F.S., 1967.)

Principles Guiding Teacher Education Activities in the Florida State Department of Education

The teacher education activities at the Florida State Department of Education have been increased substantially during 1966-68. It is planned that there will be even greater increases during 1969. Before reviewing these activities, however, it seems worthwhile to consider some principles which are pervasive in planning and implementing teacher education activities in the Florida State Department of Education. A review of these principles should add perspective to subsequent information about teacher education activities in the Department.

PRINCIPLE 1.--The responsibility for instituting and carrying out programs of teacher education rests jointly with teacher education institutions, county school systems, and professional organizations. The function of the State Department of Education is not to operate programs of preservice or inservice teacher education. The Department has, instead, attempted to help *schools, colleges, and professional organizations to obtain better information for making better decisions about teacher education and to encourage the initiation of new and improved programs.*

PRINCIPLE 2.--Artistic teaching requires (1) a thorough comprehension of and commitment to the goals of the specific course being taught, (2) a thorough understanding of the pupils being taught--their knowledge, aptitudes, and attitudes, (3) a thorough understanding of the subject matter which must be mastered by the pupils, and (4) a wide range of specific teaching skills which can be drawn upon at the appropriate times.

Concern in the State Department of Education for teacher education is not restricted to any particular aspect of teaching (such as laboratory experience or patterns of subject matter specialization). While different projects may focus on certain limited aspects of teaching, these are always viewed in the context of the total teacher education program. The State Department of Education is concerned with contributions to teacher education made by all facets of the University community and by all segments of the teaching profession.

PRINCIPLE 3.--Direct involvement with learners is important at all stages of teacher education. It is essential throughout the preservice programs, for it is there that teaching candidates appear to have the greatest difficulty appreciating the relevance of their professional work to the problems of teaching.

PRINCIPLE 4.--The most effective way to improve teaching performance at both the preservice and inservice levels is to provide usable feedback.

PRINCIPLE 5.--The way for the State Department of Education to make the greatest contribution to teacher education at the present time is to seek answers to some fundamental questions--answers which are much more specific than those now available: (a) What are teachers in a given area supposed to be able to do? (Areas could represent classification by subject, by level, by type of school [i.e., disadvantaged, suburban, etc]. The things which teachers are supposed to do could include both general things and things unique to certain types of positions.) (b) How can teachers be helped (both before they begin teaching and while they are teaching) to do these specific things better? (c) How can one tell when teachers are able to do things which they are supposed to be able to do? (d) What are the best sources and methods through which the necessary numbers of qualified teachers can be obtained and retained?

In short, the State Department of Education is trying to bring teacher education closer to teaching. The value of any teacher education program can be measured only in terms of its contributions to the educational programs for boys and girls. Florida is attempting to develop a system whereby teachers can obtain better knowledge relative to the effects of their preparation programs on the boys and girls in the schools. The Florida system also takes into account the fact that preservice programs only prepare persons to begin to teach. Thus, the system is also designed to help those who have graduated from teacher education programs to continue their teacher education.

The Teacher Education Advisory Council

The Florida Legislature has created a Teacher Education Advisory Council to advise the State Superintendent on matters related to teacher education. Its duties are prescribed as follows: "(a) to aid in developing desirable standards for teacher education; (b) to assist in the improvement of teacher, administrator and supervisor education in the state; (c) to plan and conduct . . . studies relating to the selection, education, guidance and placement of school personnel . . . (d) to submit to the State Superintendent (an annual) report summarizing the findings of studies conducted during the year and proposing such recommendations for improvement in the program as are considered desirable." (Section 231.10 [1],F.S., 1967.)

The membership of the Council is also stipulated in the Statutes (Section 231.10 [2], F.S., 1967): (a) one member from each teacher education institution in the state; (b) an additional member from the liberal arts college of each teacher education institution having a separate college of arts and sciences; (c) four members from the State Department of Education; (d) the President and Executive Secretary of the Florida Education Association; (e) the Chairman of the Teacher Education and Professional Standards Committee of the Florida Education Association; (f) one junior college president; (g) one County Superintendent, one supervisor, two senior high principals, two junior high principals, two elementary principals, three senior high teachers, three junior high teachers, and three elementary teachers; (h) six lay persons.

The Teacher Education Advisory Council meets twice each year. In the past, virtually all of its work has been accomplished during the regular semi-annual meeting. Since 1967, however, committees of the Council have been holding interim sessions. Thus, the capabilities and contributions of the Council have expanded significantly.

Some Notions on Guidelines for Teacher Preparation Programs

During 1966-68, the Florida Teacher Education Advisory Council has been attempting to find ways to state guidelines for various types of preparation programs which will be effective in moving teacher education programs in desirable directions but which will not be excessively prescriptive. Concerted efforts have been made to avoid stating guidelines in terms of courses or credits. The following paragraphs contain a point of view on guidelines which reinforces the idea that guidelines should not be excessively prescriptive in recommending teacher education experiences. It suggests, on the other hand, that guidelines should be considerably more prescriptive in terms of the knowledge, attitudes, and skills that should be possessed by persons who complete the program. The Teacher Education Advisory Council is now attempting to develop guidelines of this type.

When are Guidelines Needed?

Guidelines prepared by outside professionals are needed only if there is reason to believe that (a) the objectives of a given teacher education program are not directed to fulfilling a need which such a program should fulfill, (b) or that a program is not meeting its objectives. Guidelines from outside professionals may also be useful in developing new programs. If these conditions do not exist, guidelines are not needed.

The best guideline that an institution can have for doing something in a particular way is not one which was developed by outside professionals. The best guideline consists of evidence that doing the job in that way accomplished the desired objective in that institution. The next best guideline is evidence that in other situations a particular approach has accomplished the desired objective. The third best guideline is a well reasoned argument which shows that doing things in a certain way will result in accomplishing the desired objective. The role of outside professionals is to provide guidelines of the latter two types.

Functions of Guidelines

The type of guidelines which might be developed by a panel of outside professionals should fulfill the following four functions:

1. The most useful thing which a panel of professionals can provide an institution is a set of objectives for a program with well reasoned arguments justifying these objectives. It is only in the light of such objectives that subsequent guidelines derive validity.
2. The panel of professionals should, at the same time, explain how the institution can determine whether the objectives are being accomplished. This makes it possible for institutional programs to be validated and for institutions to develop what are described above as the "best guidelines."

3. The next step is for the panel of professionals to suggest types of experiences which are likely to lead to the desired objectives. Many sets of guidelines which have been developed in the past have included only recommended experiences. This has resulted in the experiences themselves serving as the ultimate criterion for evaluating a teacher education program. In such cases, experiences may not be viewed by participants (both professors and students) in terms of their relevance for accomplishing certain types of objectives in teacher preparation. Thus, the "best guidelines" are never developed.
4. Finally, the panel of professionals should suggest the types of candidates who would be the most likely to respond favorably to the experiences in the teacher education program and, as a result, develop into the kinds of teachers which the program is designed to prepare.

State Planning for Teacher Education

A major focus of Florida M-STEP has been toward development of comprehensive plans for improving teacher education (and teaching) in Florida. This is not to say that Florida M-STEP has set out to develop a rigorous set of goals and procedures which would be followed in every preservice and inservice teacher education program. The attempt has been to develop a dynamic type of planning: planning which takes into account present programs and desired objectives.

A plan is viewed as simply a course of action devised to get one from where he is to where he wishes to go. Thus, a fundamental step in planning is to determine where one is. Florida M-STEP has developed an information system directed to this purpose. Also, several studies have been conducted using this information system. A second fundamental step in planning is the establishing of priorities (or deciding where it is that one wishes to go). Many of the committees and conferences supported by M-STEP have been directed to identifying priorities for various aspects of teacher education.

An example of the dynamic types of planning advocated by Florida M-STEP can be seen in the plans which have been developed for coordinating Florida proposals prepared for funding under the Education Prosessions Development Act. At its meeting on March 20, 1968, the Teacher Education Advisory Council adopted procedures and priorities regarding the utilization of the Education Professions Development Act in Florida. These were the culmination of extensive consultations and collaborations prior to the meeting.

In general the Council proposals are intended to focus EPDA proposals on specific priorities and to provide the U. S. Office of Education with information regarding the ways in which proposals comply with the priorities. The basic intent is to help Florida attain maximum benefits from this federal legislation.

The Council has made the following recommendations for coordinating EPDA proposals in Florida.

1. *Data bank service.* The Board of Regents and the State Department of Education are collecting information which can be used by institutions as they develop EPDA proposals.
2. *State EPDA priorities.* A set of priorities which apply to Sections A, B^2, C, and D of the Act have been adopted. These are intended to give the overall EPDA effort maximum impact in Florida.
3. *Committee for reviewing the proposals.* A committee is being appointed to review proposals prepared for submission under Sections A, B^2, C, and D of the Act. This committee will prepare a statement on each proposal reviewed indicating the ways in which that proposal implements State priorities. This statement by the review committee may be attached to the proposal when it is submitted to the U. S. Office of Education.

Examples of M-STEP Activities in Florida

The following are examples of additional Florida M-STEP activities which relate to intra-state organization. They are not intended to be all inclusive.

Laboratory Experience Activities

1. A bulletin entitled *Guidelines to Student Teaching in Florida* has been prepared by a committee composed of representatives of the Teacher Education Advisory Council and the Association for Student Teaching.
2. A series of four regional conferences on school-college cooperation in professional laboratory experience was sponsored by the State Department of Education and the Florida Unit, Association for Student Teaching.
3. A survey of attitudes toward certification and compensation of supervising teachers has been conducted in cooperation with the laboratory committee of the Teacher Education Advisory Council.
4. A series of regional conferences on micro-teaching was conducted in cooperation with Florida State University, University of South Florida, and University of Miami.

Teacher Evaluation Activities

1. Studies of the Florida teacher evaluation form were conducted with the assistance of administrators and supervisors in Florida public schools.
2. A publication entitled *Developing a County Program for Evaluating Teaching in Elementary and Secondary Schools* has been published. This document was prepared to assist county school districts in meeting requirements of the newly amended teacher evaluation law. The substance of this paper comes principally from ideas articulated in the study "State-Wide Teacher Evaluation: A Conceptualization of a Plan for Use in State Educational Leadership."
3. A series of six regional conferences dealing with techniques for analyzing teaching were conducted in cooperation with the State University System and the Florida TEPS Committee.

Utilizing State Department of Education Information

1. A highly flexible system for retrieving electronically stored data on teachers and schools has been developed. The purpose of this system is to make available for special purposes data which are regularly collected by the State Department of Education.
2. A study of sources of new Florida teachers has been conducted.
3. Projections of personnel needed to maintain present programs in Florida public schools have been prepared. These projections are to be updated annually.
4. The data retrieval system is being utilized to collect follow-up information on graduates of specific teacher education programs in Florida.

Teacher Aide Activities

1. A conference on the training and effective utilization of teacher aides was held under the joint sponsorship of the State Department of Education and the Florida Educational Research and Development Council.
2. A bulletin, *Aides for Florida Teachers*, was prepared by a committee of public school and higher education personnel, and State Department of Education representatives.
3. The State Department of Education is cooperating with a committee appointed by the Teacher Education Advisory Council to continue work which was started in the M-STEP Teacher Aide Project. The committee has been assigned the following responsibilities: (a) delineate duties which can be performed by teacher aides from those restricted to professional teachers; (b) recommend criteria for selecting aides; (c) develop guidelines for training programs for teacher aides; (d) develop

guidelines for training programs for teachers who supervise aides.

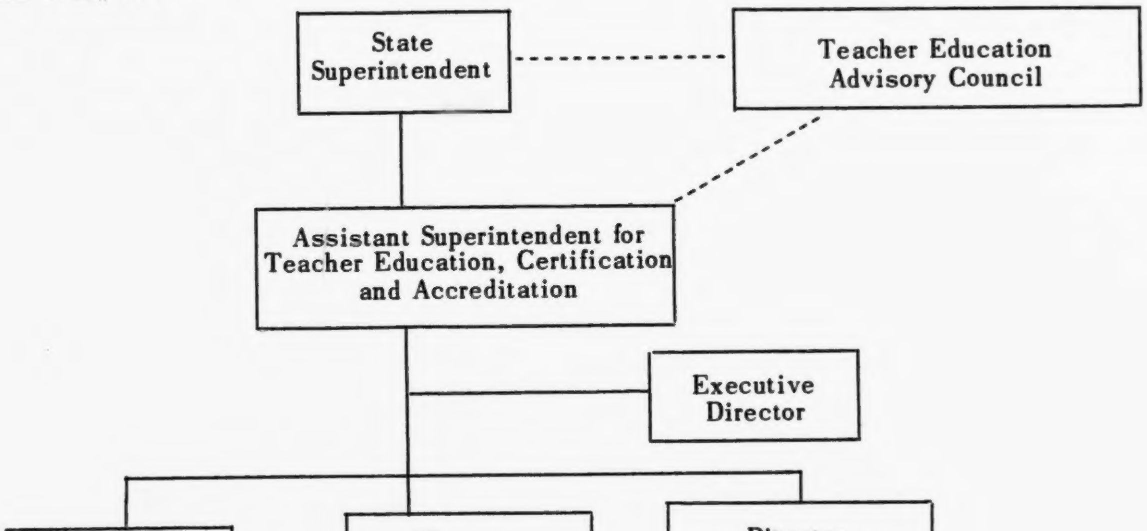
4. A conference was held dealing with the role of junior colleges in training teacher aides and training persons who supervise teacher aides. This conference was planned and conducted in cooperation with the Florida Educational Research and Development Council and with the Junior College Division of the State Department of Education.

Inservice Education Activities

1. The State Department of Education has developed proposals in the area of inservice education for consideration by the Governor's Commission on Quality Education. The basic elements of this proposal were enacted into law by the Florida Legislature.
2. The State Department of Education is cooperating with the Graduate Programs Committee of the Teacher Education Advisory Council in developing guidelines for graduate programs to meet inservice education needs.
3. The State Department of Education developed a set of guidelines for inservice education programs in county school systems. These were revised and adopted by the Teacher Education Advisory Council. They also have been adopted by the State Board of Education.

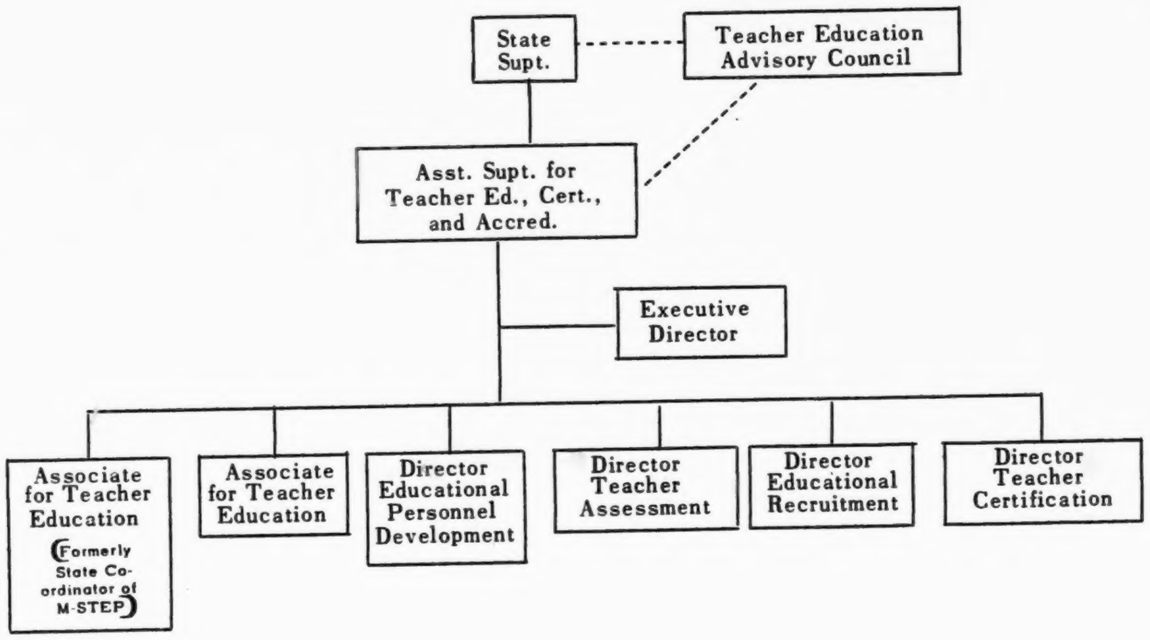
Organization for Teacher Education in the Florida State Department of Education

At the beginning of M-STEP (Spring 1966), the organizational chart for teacher education in the Florida State Department of Education was as follows:


State Superintendent
Teacher Education Advisory Council
Assistant Superintendent for Teacher Education, Certification and Accreditation
Executive Director
Director, M-STEP
Director, Teacher Certification
Director, Teacher Recruitment

STATE ORGANIZATIONS

On July 1, 1968, the organization for teacher education in the Florida State Department of Education was as follows:


State Supt.
Teacher Education Advisory Council
Asst. Supt. for Teacher Ed., Cert., and Accred.
Executive Director
Associate for Teacher Education (Formerly State Co-ordinator of M-STEP)
Associate for Teacher Education
Director Educational Personnel Development
Director Teacher Assessment
Director Educational Recruitment
Director Teacher Certification

M-STEP in Maryland

MARYLAND'S structure for participation in a statewide teacher education improvement project began to take form during the year 1964-65 in the minds of members of a special task force called together at the initiative of one division of the State Department of Education. This was a special committee assembled for the purpose of outlining basic ways of improving teacher preparation in the state. Its membership comprised eight persons, four representing the state's public teacher education institutions, and an equal number representing departments of education in the state's non-public colleges and universities, under the chairmanship of a member of the State Department of Education. The two major priorities suggested by this group for the improvement of teacher education in the state involved new dimensions in student teaching and the application of television and related media to teacher preparation.

Concurrent with the approval of the seven-state M-STEP project by the U. S. Commissioner of Education, officials of the Maryland State Department of Education, the College of Education at the University of Maryland, and the Montgomery County School System began to develop plans for an intrastate organization embracing what presumably would become Maryland's part in the plan previously agreed upon by the M-STEP Planning Board during its series of deliberations.

The committee assigned the task of implementing the Maryland M-STEP plan consisted of Dr. Richard Collier of the Montgomery County Schools, Dr. V. Phillips Weaver from the College of Education at the University of Maryland, and W. T. Boston and Howard E. Bosley from the Maryland State Department of Education. The group recommended that the Kemp Mill Elementary School become the Maryland M-STEP Teacher Education Center.

The Maryland plan was subsequently approved by officials of the State Department of Education, the College of Education at the University, and by the Montgomery County Board of Education.

Administrative Organization of the Center

The Steering Committee: Early proposals recommended that the Teacher Education Center be administered by a committee to be composed of the following:

The Project Coordinator

The Assistant Dean of the College of Education at the University of Maryland, or his designated representative

The Director of Staff Development, Montgomery County Public Schools, or his representative

The Maryland State Department of Education official primarily responsible for teacher education

The Principal of the public school which will become the Teacher Education Center

The representative of the teaching faculty of the Demonstration Center

The Coordinator of Professional Laboratory Experiences of the College of Education at the University of Maryland

The Area Director, Montgomery County Public Schools

The school/based supervisor of the Center

In the process of administering the work of student teaching, internships, and other aspects of the direct experiences process, the Steering Committee and its consultative personnel were expected to consider the following five major areas of concern:

(a) Selecting laboratory experiences which are effective in teacher education.

(b) Developing and utilizing new instructional media in teacher preparation.

(c) Evaluating and testing innovations and hypotheses which are introduced into the Center.

(d) Disseminating and distributing reports on the processes, results, and findings of the Center. This has included newspaper releases, slides and films, radio and TV news items.

(e) Developing inservice programs for staff at the Center.

TEACHER EDUCATION IN TRANSITION

From the earliest planning phase, Maryland State Department of Education representatives indicated a special interest in the teacher education center concept. This concern was expressed in five general objectives for the Maryland M-STEP program:

1. To provide a variety of experiences in student teaching which will tend to develop mature and effective professionals skilled in the use of a wider range of aids and techniques than is normally provided student teachers in a traditional student teaching experience. Please see Attachment B, Maryland section.
2. To demonstrate that preservice and inservice staff development can be unified in a continuing teacher education program in a teacher education center.
3. To identify and study new roles and skills for public school and college faculties in a continuing teacher education program.
4. To identify and study the role of a teacher education center coordinator, jointly appointed and employed by the school system and college.
5. To identify and study the role of the state department of education in a continuing teacher education program.

Inasmuch as M-STEP was a concerted effort toward establishing a full partnership relationship in the field of teacher education between the State Department of Education, the University of Maryland, and the Montgomery County Public Schools, each agency agreed to make important contributions to the project.

The University of Maryland assigned a consultant to the Kemp Mill Center, paid half of the Center coordinator's salary, and offered tuition free courses to cooperating teachers in addition to other special services.

Montgomery County provided office space in the Kemp Mill School for the State M-STEP coordinator and his secretary. It also set aside an office-seminar room for the Center coordinator. One-half of the salary of the Center coordinator (joint appointee) was contributed by the county school system.

The State M-STEP coordinator maintained contact with M-STEP leaders in the six other states by attending conferences involving all seven states. He administered the state M-STEP office, served on a small committee, operated the videotape equipment purchased for the Kemp Mill unit, planned and chaired Steering Committee meetings, and made periodic reports to the Maryland State Department of Education and the M-STEP Central Office, both of which are located in Baltimore.

The Center coordinator's position was new and unique, since she was on the staff of both the Kemp Mill Teacher Education Center and the University of Maryland. It was intended that the Center coordinator would eventually assume many of the responsibilities previously held by the University supervisor.

A significant advantage of having a Center coordinator stationed at the Kemp Mill facility was that conferences with participants and the coordinator were more easily arranged than is possible in a conventional student teaching situation. It was believed that such conferences were highly meaningful to the student teacher because the coordinator was familiar with the program for the children, knew the teachers in the building, was constantly with the student teachers, and had a vast background of information.

The staff of the Kemp Mill Elementary School included twenty-nine classroom teachers serving from kindergarten through the sixth grade. There also was the principal, vice-principal, librarian, resource teacher, physical education teacher, and the M-STEP Center coordinator, as well as two school secretaries and the project coordinator and his secretary.

Visitors to the Center

Individuals and groups interested in teacher education and, more particularly, the M-STEP concept, visited the Kemp Mill facility from twelve states (California, Connecticut, Florida, Illinois, Maryland, Michigan, North Carolina, Pennsylvania, South Carolina, Utah, Washington, West Virginia) and the District of Columbia. Educators from four foreign countries spent some time at the M-STEP Center. These visitors were from Bolivia, England, Japan, and South Vietnam.

Staff Evaluation of Project

Center staff, as part of the Workshop, prepared a position paper on the Teacher Education Center concept of the Maryland M-STEP project. From the experiences and research of the cooperating teachers at the Kemp Mill Center, the faculty offered a number of recommendations to be considered by the M-STEP Steering Committee for inclusion in the 1967-1968 school year activities.

Those recommendations follow:

1. The total faculty should be involved in the inservice educational opportunities and in the training of student teachers whenever possible.
2. More released time for meeting, planning, and training should be provided.

3. Financial remuneration should be extended to cooperating teachers to acknowledge their increased workload.
4. Teacher attendance at appropriate conferences should continue to be encouraged.
5. Teachers should serve on M-STEP or Center planning committees.
6. Kemp Mill faculty should meet two days before school opening to learn about the present status of M-STEP and to plan regarding the training of student teachers.
7. Current information concerning M-STEP should be available to cooperating teachers and student teachers.
8. Reports of meetings, lectures, and conferences attended under the auspices of M-STEP should be made to entire staff.
9. The use of videotape equipment should be broadened so that teachers can use it for self-analysis and improvement.
10. Tapes of speakers should be made routinely.
11. Provision should be made for greater horizontal as well as vertical participation of student teachers.
12. Innovations for analyses and evaluation of teaching performances should be devised and implemented.

As the M-STEP program entered its final weeks of operation, the Kemp Mill faculty was asked to state its opinions as to the relative merit of certain services provided by the Teacher Education Center. The results of this survey restated the areas as indicated in a previous poll conducted at the Center in 1967. Released time for planning, for attending conferences, for professional growth, and for professional travel continued to rank high in the order of services which the cooperating teachers believed important to a future enrichment of Center experiences.

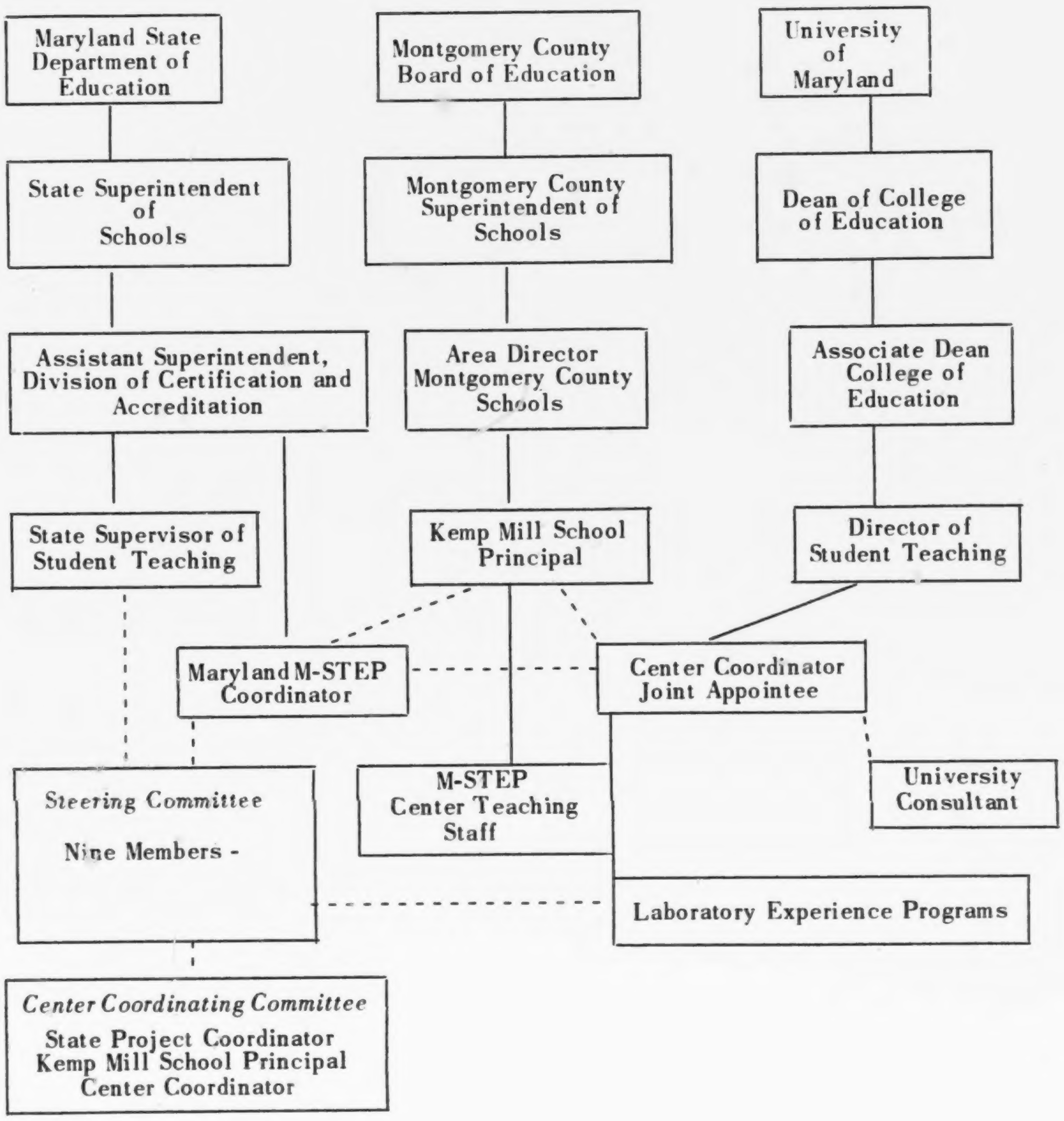
The 1968 listing of services, as indicated on the opinionnaire, was reported at the M-STEP Appreciation Meeting held in June 1968 for all those directly identified with the Kemp Mill Teacher Education Center.

Services teachers valued, in order of importance, were:

1. Released time
2. Graduate courses of the cooperating teacher's choice
3. More classroom aides
4. Professional travel
5. Secretarial services available to teachers
6. More equipment (i.e., videotape units, etc.).

ATTACHMENT A

MARYLAND M-STEP
Organization Chart


Maryland State Department of Education
Montgomery County Board of Education
University of Maryland
State Superintendent of Schools
Montgomery County Superintendent of Schools
Dean of College of Education
Assistant Superintendent, Division of Certification and Accreditation
Area Director Montgomery County Schools
Associate Dean College of Education
State Supervisor of Student Teaching
Kemp Mill School Principal
Director of Student Teaching
Maryland M-STEP Coordinator
Center Coordinator Joint Appointee
Steering Committee
Nine Members -
M-STEP Center Teaching Staff
University Consultant
Laboratory Experience Programs
Center Coordinating Committee
State Project Coordinator
Kemp Mill School Principal
Center Coordinator

ATTACHMENT B

Maryland's Teacher Education Center, Kemp Mill Elementary School*

PROGRAM OF THE CENTER

The Maryland Teacher Education Center which opened in September, 1966, had three major types of activities:

(a) Preteaching experiences for college juniors.

(b) Student teaching.

(c) A continuing program for cooperating teachers in the Center to improve their services as supervising teachers and to improve their role as teachers of boys and girls.

The Preteaching Program

Theoretically, a student begins his professional training when he takes his first professional course and continues his professional growth as long as he teaches. The first professional course a student takes in the College of Education at the University of Maryland is Education 110. Quoting from the College catalogue, the initial course is described as follows:

> EDUCATION 110---*Human Development and Learning* (6)
> Open only to students enrolled in approved teacher education curricula. Studies scientific facts that describe growth, development, and learning, and the implications of these for the teacher and for the school. A study of an individual child and a classroom participation experience are integral parts of the course and require a one-half day per week assignment in a public school as a teacher aide. Students are scheduled for field assignments in an elementary or high school according to the curriculum they are in. Each group is under the supervision of a faculty member with whom it meets every second week in a semester session. (Staff)

Approximately twenty-five students were assigned to the Education 110 course at the M-STEP Center each term. Students enrolled in this course, in most instances, are University of Maryland juniors who spend four hours a week on campus and a half day a week off campus observing and participating.

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*From *Maryland M-STEP – A Final Report* (Baltimore: Maryland State Department of Education, 1968).

Education 110 has a dual purpose:

(a) to provide the student with an understanding of human development by direct observation of children.

(b) to acquaint him with the total operation of the school, including gaining a perception of the role of the teacher.

Every two weeks, the Education 110 students assigned to Kemp Mill attended a seminar conducted by the M-STEP Center coordinator. These sessions treated such topics as:

Aspects of school curriculum;
Instructional methods and techniques;
Classroom management;
Individualized instruction; and
Special services of the school system.

In the M-STEP preservice program, college juniors also engaged in a variety of experiences during their limited hours at the Kemp Mill School. They assisted experienced teachers in numerous ways, i.e., reading to the boys and girls, working with small groups, individual pupils, or with large groups of children. Through the efforts of the Center coordinator, Education 110 students were exposed to individualized experiences believed to be in their particular interest.

The Student Teaching Program

Student teaching is normally done in the senior year for a sixteen-week period. One of the unique features of the M-STEP Center was that while student teachers were still assigned for the same period of time, they were not confined to the traditional pattern of working with one supervising teacher. Instead, each student's strengths and weaknesses were assessed by the Center staff and a program was designed to best benefit the student. A student teacher might have two or three ongoing assignments at different grade levels within the school, with major continuing responsibility for classes during those periods.

Each fall the student teachers reported to Kemp Mill along with the staff for orientation and learned about policies and procedures of the Center. During the opening weeks, each student teacher worked with a cooperating teacher in the organization, management, and planning of the classroom. Thus, they were able to see all that goes into the actual work and planning for a group of children as they enter upon a year of growth.

The student teacher remained with the same supervising teacher for the first two weeks of school with the exception of the hours when he visited and observed on all grade levels. This gave him an opportunity to see children of different chronological ages and different levels of emotional maturity. He observed the ways teachers plan to meet the needs of all children using the curriculum as a guide.

The laboratory experiences of each student teacher at the M-STEP Center were categorized on four levels: (1) intensive experiences; (2) extensive experiences; (3) common experiences; (4) seminars.

At the end of the two-week induction period, each student teacher was assigned to work with a supervising teacher in beginning direct and intensive training for approximately eight weeks.

In addition to classroom work, the student teacher gradually became aware of and involved in the larger responsibilities of a working professional faculty.

Intensive training included experiences traditional to most student teachers and unique experiences which were possible because of the organization, facilities, personnel, and design of the M-STEP Center at Kemp Mill.

Unique experiences during the intensive training period included:

(1) Use of a tape recorder for self-evaluation and for conference discussion.

(2) Use of the videotape recorder to record a lesson. The follow-up included viewing the tape, conference, and evaluation of student teacher and cooperating teacher.

(3) Attendance at a staff meeting at the University of Maryland. At this session a videotaped lesson was presented. The student teacher and cooperating teacher participated in the analysis and evaluation.

(4) Working with community mothers who volunteered to help with special projects.

(5) Making home visits with the cooperating teacher.

(6) Observing an Outdoor Education Project. Student teachers who visited Mar-Lu-Ridge Outdoor Education classes in October where active participants in May when the Kemp Mill sixth grade pupils studied at Mar-Lu-Ridge.

Since the Center coordinator was based full time at Kemp Mill School, she was able to individualize the experiences for student teachers and to plan also for their extensive experiences.

The student teachers enriched their extensive experiences by observing such activities as:

(1) Audio-visual teaching aids:
   a. Tape recorder
   b. Overhead projector
   c. Thermofax
   d. Opaque projector
   e. Film projector
   f. Motion picture projector
   g. Listening station
   h. Viewlex

(2) Parent-teacher conferences

(3) Home visitations

(4) Field trips:
   a. Wheaton nature center
   b. Supermarket
   c. Planetarium
   d. Outdoor education program
   e. Mar-Lu-Ridge
   f. Lumber company
   g. Nature trail
   h. Police department
   i. Area 8 music festival
   j. National Symphony
   k. Scientists Cliffs and Core Point
   l. Tiny Tots Concert
   m. University of Maryland Farm
   n. Dairy
   o. Franciscan Monastery
   p. Recreation center

(5) Planning and constructing bulletin boards for school library and classrooms

(6) Observing Assistant Principal administering achievement tests and later make-up tests

(7) Videotaping mathematics lesson and conference.

One student teacher planned and taught music for four sixth grade groups; another spent a week at the Montgomery County School Department's Administrative Office in Rockville with the Staff Development, Testing and Research section; a third student teacher observed mathematics, music, physical education, and science resource teachers at work.

To improve the clinical instruction in teaching, the Center coordinator instituted and carried through a program which included common experiences for all student teachers at Kemp Mill.

A listing of some common experiences follows:

(1) Faculty meetings and faculty social functions
(2) Grade level planning
(3) Audio-visual workshop
(4) Working with cumulative records
(5) Visits to Outdoor Education Project or Mar-Lu-Ridge
(6) Attendance at MSTA or PTA
(7) Participation in a book fair
(8) American Education Week with parents visiting in the school and in the classroom where students were participating
(9) Attendance at International Reading Institute
(10) Visits to other schools to observe the Language Arts Approach to reading.

Under the direction and leadership of the Center coordinator, the student teachers gained valuable seminar experience as they considered such topics as:

(1) Orientation to the school, M-STEP and the college
(2) Introduction to log-keeping, helps, hints, bibliographies, lesson plans, ideas
(3) Preparation for participation in, and evaluation of, outdoor education
(4) Professionalism in school organization
(5) Interpersonal relationships – involvement with pupils, school staff, central office personnel
(6) Specialization personnel – music, social studies, mathematics, physical education
(7) Employment procedures
(8) Evaluation.

The Center coordinator kept in touch daily with the student teacher's progress with a view toward changing an individual's program as the need arose.

M-STEP in Michigan

THE Multi-State Teacher Education Project in Michigan is dedicated to the improvement of school districts, teacher education institutions, and representatives of professional organizations. The goal has been to create a climate in which these three agencies and the State Department of Education can become working partners in the improvement of preservice and inservice teacher education programs throughout the state.

Michigan produces approximately 10,000 new teachers annually from 26 approved teacher education institutions. Considering the increased institutional enrollments, the problem of locating available placement situations for student teachers and other phases of laboratory experiences within the local schools is an issue of considerable magnitude. The problems encountered in securing these placements need to be studied carefully in a cooperative framework in order to obtain meaningful and valid direct experiences. Other problems result from:

1. Increased student placement in large metropolitan areas,
2. A tendency to reduce placements in rural schools and those located in small communities,
3. A conflict of calendar dates among the institutions and schools,
4. The need to increase emphasis toward the development of standards for the school and college personnel associated with student teaching programs,
5. A need for coordination and administration of the overall student teaching program,

6. Emerging roles of professional organizations in student teaching and related direct experiences,
7. The need for a definition of roles among institutions and schools,
8. A need to provide financial support for student teaching programs.

Michigan State M-STEP Objectives

(a) To establish regional organizations for the coordination of laboratory experiences in teacher education.

(b) To develop cooperative agreements among local education agencies and teacher training institutions as to the nature and extent of the student teaching experience.

(c) To establish regional minimum standards for the selection of:

1. local school supervising teachers
2. cooperating schools
3. college supervisors.

(d) To encourage interinstitutional cooperative structures among teacher education institutions.

(e) To encourage experimental preservice and inservice teacher education programs among local schools, colleges, and universities.

The Michigan M-STEP plan is not intended to produce specific products, but is concerned with the development of cooperative agreements and structures for improved administration of student teaching and related programs.

Michigan has centered its efforts on two of the four M-STEP project goals. These are:

(a) Developing teacher education laboratory experiences,

(b) Developing school-college-state programs for the improvement of teacher education.

The role and relationship that instructional media can assume in the teacher education process has been stressed. Media monographs and publications from Utah, South Carolina, and the M-STEP Central Office have been distributed and discussed by each Regional Council. Michigan M-STEP purchased a videotape recorder unit to provide the schools and colleges a first-hand "model" for the utilization of instructional media.

The M-STEP Coordinator or the State Director attends interstate conferences held in conjunction with the Project and reports on recent developments in the other states. Publications, reports, and other written and visual materials are distributed and discussed at each regional council meeting.

Institutions in the state have expressed special interest in microteaching techniques as a result of Utah and South Carolina's collaboration. Michigan M-STEP also sponsored a statewide clinic on student teaching, which was attended by teacher education and school district representatives. Experimental programs in teacher education were previewed, and participants visited several schools and colleges to observe teaching programs in operation.

Administration

The six regional councils have been formally organized according to plan, and progress is one of specific achievement. One region has developed sets of standards for cooperating schools, for the cooperating teachers, and for coordinators of student teachers. Interinstitutional efforts toward cooperative programs in student teaching have become a reality. One region has developed a Living Learning Center for student teachers, combining the efforts of four teacher training institutions, a local school district, and an intermediate school office. The Center Director is responsible for coordinating the four student teaching programs. Several institutions and school districts have shown an interest in this innovative means for providing preservice and inservice training opportunities for teachers.

The Michigan Reaction Panel

The Advisory Committee or Reaction Panel, as it is referred to in the M-STEP project, was originated by the Bureau of Higher Education in the Michigan State Department of Education. Project Director Eugene Richardson and Special Services Director Edward Pfau recommended a committee of fifteen school and institutional representatives. This committee was appointed to advise the M-STEP representatives in their statewide plan for the regional improvement of student teaching programs. The fifteen-member committee is made up of selected school and college personnel representing each of the proposed six regions of M-STEP. During the 1967-68 school year, the Reaction Panel met at least once every two months.

Michigan M-STEP Reaction Panel Personnel

Director of Teacher Education, Spring Arbor College

Director, Business Education, Ferris State College

Director, Student Teaching, Michigan State University

Principal, Everett High School, Lansing, Michigan*

Chairman, Undergraduate Committee, School of Education, University of Michigan

Chairman, Education Department, Alma College

Associate Dean, School of Education, Central Michigan University

Divisional Director, Continuing Education Department, Detroit Public Schools

Acting Department Head, Education, Eastern Michigan University

Director of Student Teaching, University of Detroit

Chairman, Professional Laboratory Experiences, Northern Michigan University

Director, Directed Teaching, Western Michigan University

Instructor in Education, Mercy College of Detroit

Associate Professor of Education, Wayne State University

Office of Teacher Personnel, Archdiocesan School Office of Detroit

**representing Michigan Council on Secondary Education*

"The Reaction Panel has been closely involved in the activities of the Michigan M-STEP project. The advice and counsel of this group in setting up the regional organizations has been very important to the success of the overall project in the state."

Michigan is proposing to continue the Advisory Council and the Commission on Teacher Education after the termination of M-STEP. If this is done, the Reaction Panel will probably serve as an advisory committee to this council in the area of federal programs in teacher education.

Michigan's Regional Councils

Research and other department data indicated that a single statewide organization would be too complex and impractical for effective operation. Inasmuch as regional organizations could take into account the differences in geographic locations, population density and economics, a plan which created regional divisions appeared to be the only practical way of implementing this project in the state. It was believed that a regional council framework operating throughout the state can move toward the development of innovative practices in teacher education programs and can also demonstrate the importance of promoting interinstitutional cooperation.

In dividing the state into six geographic regions‡, Michigan M-STEP is attempting to zero in on problems that are relevant to each particular region. Many exciting and unique programs in teacher education are taking place in Michigan and throughout the nation. Each college, school, and the State Department of Education has a role in this developmental structure. Much will be accomplished if these agencies can perceive this role as one of cooperation, interaction, and partnership in teacher education.

Purposes of Regional Centers

Each of the six regions has organized its tasks in terms of the unique problems of the participating education agencies and teacher preparation institutions within the region. Certain of the agencies and institutions may participate in more than one region as their interests and needs determine. The primary task in each region has been to hold organizational meetings and to select members of a regional council which is to conduct the activities of that region.

The major purposes of each region have included the objectives of M-STEP as stated above. Other purposes of the regions include the following.

General

1. Assist the State Board of Education through the Bureau of Higher Education in improving statewide communications about laboratory experiences; in improving the system of data collection; by advising about practices and programs which are appropriate, valid, and hold great promise; by recommending needed changes; and by assisting in the organization of the entire state for the improvement of laboratory experiences.
2. Develop joint responsibility between local education agencies and teacher education institutions in the preparation of professional personnel.
3. Identify the need and recommend procedures for improving state-level financial support for student teaching programs.
4. Perform functions not readily assumed by other associations, agencies, and groups having a direct interest in teacher education and certification.

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‡ Please see Attachment A, this section.

The more specific purposes of the regions pertain to organization and structure, programs, media, research and evaluation, and communication.

Organization and Structure

1. Encourage cooperative relationships among colleges and universities and local education agencies with particular emphasis on role definition.
2. Act in an advisory capacity in the determination of policies governing laboratory experiences.
3. Exercise leadership and act in an advisory capacity in matters pertaining to the coordination of student teaching programs.
4. Exercise leadership in establishing written contractual agreements between teacher preparation institutions and the districts receiving student teachers.
5. Exercise leadership in developing guidelines for the selection and orientation of supervising teachers and buildings, and for college supervisors and directors of student teaching.
6. Initiate common placement policies and procedures including consideration of common beginning and ending dates. Assist in establishing records of the frequency and nature of participation of supervising teachers.

Programs

Exercise leadership in the improvement of teacher education programs with particular emphasis on laboratory experiences by encouraging:

1. The examination of current practices in a systematic way.
2. The initiation of new programs, practices, and sequences such as internships, instructional teams, and use of analysis of teaching techniques.
3. The involvement of teachers and other personnel more directly in developing programs and practices.
4. Continuous professional growth of teachers and other personnel, particularly in the analysis of teaching and learning.
5. Participation of students in evaluating programs and practices and in making recommendations.
6. Inservice education experiences for all teachers, administrators, and counselors in present and potential cooperating schools for purposes of gaining support for student teaching, instructing as to the nature of

supervision, and assisting in the recognition of functions of student teaching.

7. The identification of new roles for student teachers based on level of professional development. Students could perform at several paraprofessional levels prior to student teaching, acting as aides, teaching assistants, etc.
8. Individualization and personalization of experiences through diagnosis of each student's level of progress and identification of professional needs.

Media

Exercise leadership in the improvement of teacher education programs with particular emphasis on laboratory experiences by encouraging:

1. The exploration and uses of a variety of instructional media.
2. The use of micro-teaching in developing effective teaching behavior.
3. The use of techniques such as simulation and critical incidents portrayals to stimulate creativity in teaching.
4. The development of videotapes and films of teaching exemplars.
5. The use of videotape for recording and analyzing the teaching style of both students and teachers.
6. The establishment of media centers and acting in an advisory capacity as to acquisitions, uses, etc.

Research and Evaluation

Exercise leadership in the improvement of teacher education programs with particular emphasis on laboratory experiences by encouraging:

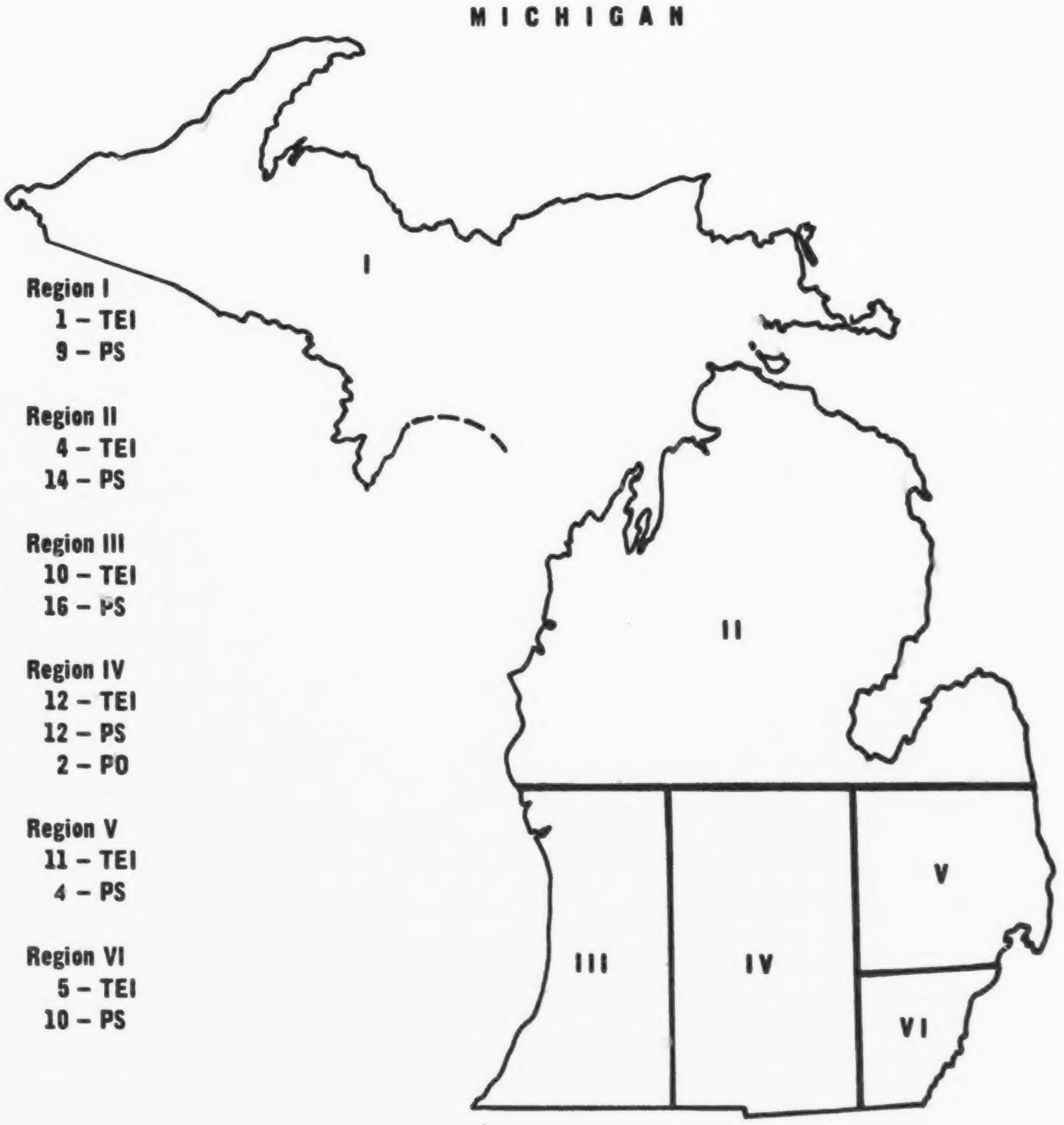
1. Cooperative research studies in all phases of student teaching.
2. Drive-in conferences on
    a. research techniques
    b. micro-teaching
    c. videotaping
    d. analysis of teaching
3. Self-evaluation through research techniques.
4. Data gathering when appropriate and assisting when possible.
5. The creation of structures for continuous identification and examination of critical issues and problems.

Communication

1. Create structures for the dissemination of information about regional activities throughout the region, and to other regions, the Reaction Panel, and other M-STEP states.
2. Survey the region as to teacher supply and demand and relay findings to teacher education institutions; assist institutions in providing students with accurate occupational information.
3. Analyze the work of other groups and associations such as the Michigan Association for Student Teaching, Deans and Directors of Student Teaching, American Federation of Teachers, and the Michigan Education Association for the purposes of informing participants as to current activities, avoiding duplication of services and functions, and coordinating efforts.

ATTACHMENT A

Michigan's Regional Organization for Improving Laboratory Experiences in Teacher Education



Region I
1 – TEI
9 – PS

Region II
4 – TEI
14 – PS

Region III
10 – TEI
16 – PS

Region IV
12 – TEI
12 – PS
2 – PO

Region V
11 – TEI
4 – PS

Region VI
5 – TEI
10 – PS

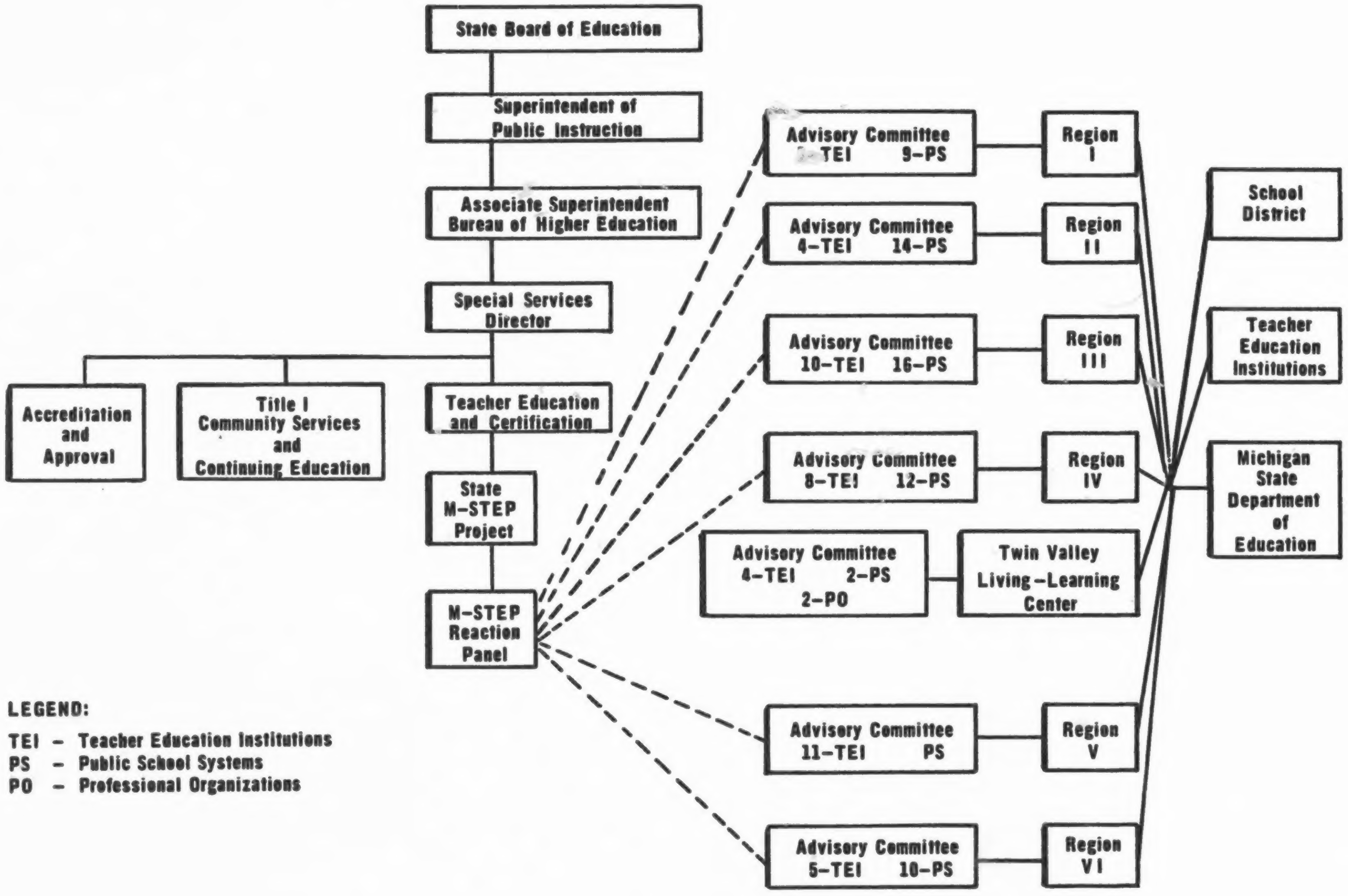
LEGEND:

TEI – Teacher Education Institutions
PS – Public School Systems
PO – Professional Organizations

ATTACHMENT B

MICHIGAN M-STEP ORGANIZATION

June, 1968


State Board of Education
Superintendent of Public Instruction
Associate Superintendent Bureau of Higher Education
Special Services Director
Accreditation and Approval
Title I Community Services and Continuing Education
Teacher Education and Certification
State M-STEP Project
M-STEP Reaction Panel
Advisory Committee [illegible]-TEI 9-PS
Advisory Committee 4-TEI 14-PS
Advisory Committee 10-TEI 16-PS
Advisory Committee 8-TEI 12-PS
Advisory Committee 4-TEI 2-PS 2-PO
Advisory Committee 11-TEI PS
Advisory Committee 5-TEI 10-PS
Region I
Region II
Region III
Region IV
Twin Valley Living-Learning Center
Region V
Region VI
School District
Teacher Education Institutions
Michigan State Department of Education
LEGEND:
TEI - Teacher Education Institutions
PS - Public School Systems
PO - Professional Organizations

ATTACHMENT C

M-STEP Regional Council Progress Report
June, 1968

Region I--The Teacher Education Council is a partnership of public schools, teacher education institutions, and the State Department of Education established for the purpose of improving the student teaching program developed by Northern Michigan University and cooperating schools in Michigan and Wisconsin.

Representation on the Teacher Education Council includes: four (4) supervising teachers and their alternatives; two (2) principals of schools who have accepted coordinating responsibilities for the student teaching program; two (2) superintendents of schools; three (3) Northern Michigan University faculty; and a representative from the State Department of Education.

Role and Function

The role and function of the Teacher Education Council is as follows:

1. To serve in an advisory capacity about policies which guide the student teaching program. To recognize and support the inherent and appropriate autonomy of each institution.
2. To serve as a forum for the consideration of recommendations submitted on behalf of schools, the university, and the State Department of Education.
3. To convey information and to interpret recommendation on policies to schools, the university, and the State Department of Education.
4. To endeavor to improve student teaching and teacher education programs, with emphasis on experimental programs in teacher education.

Recommendations and Completed Projects

Several readily identified recommendations and outcomes of the Teacher Education Council are as follows:

1. When other factors are equal, student teachers should be first assigned to supervising teachers who have completed a master's degree.
2. The public school coordinator of student teaching shall assume the responsibility to keep the student teaching office informed about

the school's current directory of recommended supervising teachers.

3. Each student teaching center is encouraged to establish a student teaching steering committee to disseminate information, to resolve problems, and to make recommendations.
4. Members of the Teacher Education Council held an inservice conference to acquaint themselves with the Central Minnesota Teacher Education Council. Dr. Floyd Perry who organized the Central Minnesota Teacher Education Council, was brought to the conference as a resource person.

Projects in Operation

The Council is continuing to work on three projects and is currently sponsoring a major activity.

1. Criteria for the selection of supervising teachers are being refined.
2. Criteria for the selection of student teaching centers are being developed.
3. The role of the public school coordinator is under study to determine his most effective participation.
4. A series of four regional inservice meetings for supervisory personnel is being held.

These discussion experiences focus on questions solicited by the Teacher Education Council and submitted by school personnel. It is hoped that minimum standards of selection concerning the above mentioned criteria in student teaching will be developed from these regional meetings. Recommendations will be channeled through the Teacher Education Council for formal adoption.

The Teacher Education Council of Region I and the student teaching program represent over 600 student teachers during the 1968-69 academic year and 33 school districts in a region represented by Alpena, Sault Ste. Marie, Ontonagon, and Green Bay.

REGION II--An Advisory Council representing four teacher education institutions and eleven school districts has been engaged in the coordination of laboratory experiences in teacher education and the development of agreements among local education agencies and teacher training institutions.

Cooperative M-STEP Goals for Region II

1. To identify good practices in teacher education.
2. To identify inter-institutional problems.
3. To encourage experimentation.
4. To foster communication among the State Department of Education, the colleges and universities and the school systems.

Summary of Recommendations of M-STEP Region II:

1. Adopt a uniform evaluation form.
2. Improve the partnership feeling among the university, the colleges, and the public schools.
    a. Recognize the corporate power of the teaching profession by listening to teachers. Include members of the teaching profession to help make recommendations for teacher evaluation.
    b. Establish a central office for all universities operating in student teaching programs in an area. This would include shared space and office staff.
    c. Universities should grant tuition-free graduate-level courses in supervision of student teaching for credit.
    d. Universities should offer cooperative credit.
    e. Emphasize a program of services to supervising teachers and the public schools in lieu of remuneration to supervising teachers. (Deans and Directors Position Paper)
3. Develop a cooperating teacher's handbook to be used throughout Region II.
4. Define the role of the cooperating teacher.

Regional Council members firmly believe that the dialogue between the public school people and the colleges and universities has begun; they see this as the most important result of the meetings. With this mutual respect established, they are confident that many of the above recommendations can be implemented.

REGION III--Representatives from the following groups make up the membership of the Region III Advisory Councils: one representative from each of the ten teacher preparation institutions placing student teachers in the region; one representative from each of the six large cities in which the greatest number of student teachers are placed; and one representative from each of the ten counties or intermediate school districts.

The 26-member council has been engaged in studying the following sub-committee areas of work:

1. Administrative arrangements in laboratory experiences.
2. Supervising teachers standards and selection.
3. Student teaching programs.
4. Pre-student teaching experiences.

In addition to being organized into subcommittees the council members spent time in general sessions discussing topics such as the following:

1. The purpose of the M-STEP program.
2. The role of the State Department of Education in teacher preparation programs.
3. The role of the teacher preparation institution in teacher education.
4. General problems on teacher education in Region III.
5. The nature of the programs in the various institutions.

Future Activities of the Council

1. Reports from sub-committees in the four areas of concentration will be prepared.
2. Committee members are inviting supervising teachers and student teachers to council meetings to discuss with them their views on student teaching.
3. Committee members wish to explore further their relationship to other regional councils as well as to the State Advisory Committee.

The committee members have expressed the opinion that the chief value of the council to date has been the exchange of ideas and information among the various groups involved in the teacher preparation process.

REGION IV--The Advisory Council is composed of one representative from each of the seven teacher training institutions; one representative from each of the five large cities in which the greatest number of student teachers are placed; and one representative from each of the seven intermediate school districts. The 20-member council has been primarily involved in sub-committee study in the following areas:

1. Role relationships of the cooperating school, supervising teacher, and the teacher preparation institution in the student teaching program.

2. Nature of the student teaching experience.
3. The Twin Valley Community Living-Learning Center.
4. The sharing of educational and instructional materials.
5. Pre-student teaching experience and follow-up education.

General Session Discussion Topics

1. Deans and Directors Position Paper. The council has approved the principle of the document. Definition of roles and services are future items to be clarified.
2. Regional council chairmen in all six of the M-STEP regions should meet periodically to coordinate their activities and facilitate communication among the regions.
3. Regional councils should send definite recommendations to the State M-STEP Reaction Panel, which, in turn, would refer proposals to the State Board of Education for legal action.
4. Chairmen of the regional councils should meet with Reaction Panel members for better coordination of effort in each of the six regions.

REGION V--Region V has held one organizational meeting to which all school districts in Wayne, Oakland, and Macomb Counties were invited. Recommendations from this meeting indicated that the Detroit region will divide into four sub-groups representing:

1. Wayne County
2. Oakland County
3. Macomb County
4. Detroit Public Schools

Each of the four sub-groups will recommend four members to serve on the Region V Steering Committee. Other representatives of the Steering Committee will include the 12 teacher training institutions and the Archdiocesan and Lutheran school offices.

A meeting of the Region V Steering Committee will be held as soon as sub-regional orientation and selection is completed. Purpose of the meeting will be to establish a framework of communication and direction for each sub-group in Region V.

REGION VI--The Region VI Advisory Council is composed of five teacher educational institutions, nine school districts, and three intermediate units. A local school superintendent was elected chairman of

Region VI. Assisting him are a vice chairman and a secretary, each representing a teacher education institution.

Purposes of the M-STEP Project in Region VI

1. To provide a means whereby all interested parties can exchange concerns and views which relate to teacher education programs.
2. To encourage regional planning and coordination of efforts in teacher education among participating institutions.
3. To develop inter-institutional supervision and coordination of laboratory experiences where it would be advantageous.
4. To stimulate innovative approaches to teacher education.
5. To communicate on laboratory experiences of teacher education within the region so that the most effective use of all facilities in the region can be accomplished.
6. To consider the development of procedures in laboratory experiences where possible, such as:
    a. Criteria for the selection and development of learning environments for professional laboratory experiences.
    b. Requirements for the amount of teaching and observation hours per credit hours of student teaching.
    c. The form of services contributed by the various institutions involved.

Activities of the Region VI Council

1. Discussion concerning the Deans and Directors Position Paper.
2. Demonstration of the videotape recorder. Several tapes on microteaching from Utah M-STEP were previewed. Information concerning cost, maintenance, and utilization of the videotape recorder was discussed. It was emphasized that the Michigan M-STEP program purchased a videotape recorder unit, which is available to institutions and school districts throughout the state on a loan basis.
3. Dr. Albert Bernstein of the MOREL Education Laboratory explained the purposes of his organization and also pointed out ways in which the institutions and school districts could utilize the services of the regional laboratory.
4. Each teacher training institution representative reviewed his program and outlined plans for future directions in professional laboratory experiences.
5. Discussion was held on the Education Professions Development

Act and its emphasis for teacher training institutions, school districts, and the State Department of Education.

6. Council members have recommended that the Deans and Directors Position Paper receive wide distribution in Region VI. Arrangements are being studied with county superintendents and principal associations to discuss implementation of the document.

Reaction Panel--The panel has developed a set of "Common Purposes" for all regional councils. Presently it is studying ways in which better coordination of effort among all councils can exist. Members of the Panel are pleased with the progress of the project and are striving to develop more effective ways of utilizing resources that exist in each of the six regions.

M-STEP in South Carolina

IT is accepted as an axiom that the quality and kinds of experiences persons undergo have a positive relationship to their success as teachers.

The colleges of South Carolina have been successful in developing programs designed to prepare teachers for the kind of schools which have existed, with possibly the exception of student teaching and internship experiences. However, in light of the availability of federal funds for the establishment of new programs and for a change in emphasis of present programs in our public schools, teachers possessing new abilities and new understandings will be required. As an example, it is more than probable that there will be special schools organized, special classes in present schools, and special modification of present organizations for the purpose of more adequately taking care of the educational needs of children from culturally and economically deprived homes. Doubtless, further directions will demand far more experimentation with various kinds of curricula and will utilize new resources in the fields of art, music, remedial reading, trips, and other experiences designed to individualize instruction and to bring more sensory experiences to the learning processes. This trend will require a different order of experience in the preparation of teachers. In addition, knowledge of anthropology, psychology, social psychology, sociology, and philosophy will be needed to provide the understanding of the special needs of children from culturally and economically deprived environments.

Basic to the M-STEP project in South Carolina are the following.

1. The student characteristics and backgrounds of our public school classes will change markedly.

2. These student characteristics will become more heterogeneous and less homogeneous.
3. Understanding of cultural and economic backgrounds has a real influence and effect on the teaching-learning situation.
4. Value patterns of differing cultures are related to methodology and curriculum content.
5. Students in teacher preparatory programs are not given sufficient insights into differing cultures either from textbook courses or through first-hand experiences.
6. The utilization of television in teacher education and particularly student teaching can be effective.
7. Correlated written material or study guides serve as a reinforcement and strengthen the effectiveness of television instruction.
8. A state department of education publication on student teaching will tend to strengthen all aspects of student teaching and serve as a framework of procedures and terminology.
9. A program of state leadership designed to bring about changes in teacher prepatation programs along these lines will make a genuine contribution to the effectiveness of our schools and teachers.

Objectives of the State M-STEP Project

The broadly based objective of the project in South Carolina was to provide the necessary leadership and coordination " . . . to strengthen teacher education programs now existing and to create a climate which stimulates innovation, experimentation, and improvement by college and public school personnel."[1]

The specific expectations of the program were as follows:

1. Work with colleges and universities in developing total teacher preparatory programs that include knowledge and experiences that will assist their graduates in understanding and planning for the culturally deprived as well as the gifted.
2. Plan conferences with college personnel designed to open this area for discussion.
3. Plan conferences to provide specialists and consultants specifically in the areas of anthropology, psychology of learning, social psychology, and sociology.

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[1] Report of South Carolina M-STEP, 1968.

2

4. Develop bulletins and publications and make them available to colleges.
5. Develop bibliographies and source material that would be helpful to incorporate in present course offerings.
6. Keep abreast of research in this area and make it available for distribution. (Brochures, newsletters, television programs, television demonstrations.)
7. Collect and compile information on promising programs going on in public schools. Promote visitation to these programs by college personnel.
8. Promote conferences of leaders of promising practices with institutions training teachers.
9. Hold workshops and institutes in regional meetings or in local districts developing competency on the part of the supervising teacher.
10. Work with local school administrators as to how to use and place student teachers.
11. Develop material for brochures suitable for:
    (a) college students
    (b) local school districts
    (c) distribution to parents.
12. Produce videotapes suitable for use in helping student teachers become aware of the expectancies of (a) college and (b) school districts.
13. Develop a *Handbook for Student Teaching.*

The stated objectives and expectations of the South Carolina program were a restatement of the overall M-STEP objective: " . . . the improvement of teacher education laboratory experiences."

Most specifically, South Carolina M-STEP related to the "production and use of videotapes and films in preparing teachers" and the "development of school-college-state programs for the improvement of teacher education."

SOUTH CAROLINA M-STEP UTILIZED DIVERSE PROCESSES TO CARRY OUT ITS OBJECTIVES

1. In the M-STEP program, the State Department of Education attempted to involve on a gradually increasing scale those persons from institutions of higher education, public schools, and professional education groups who were directly concerned with teacher education programs. Regional meetings throughout the state with college personnel provided the initial basis for dialogue related to the organization of the project and identification of areas in teacher education programs about which there was consensus of real need for improvement. Through this statewide involvement of educators, South Carolina has witnessed an increase in intrastate cooperation among and between colleges, public schools, the Association for Student Teaching, ETV personnel, and other professional education groups.

2. South Carolina M-STEP personnel have served on committees for other states of the M-STEP compact.

3. South Carolina is equipped with one of the nation's most comprehensive statewide ETV facilities. M-STEP utilized both the production and distribution capabilities of South Carolina ETV in producing and broadcasting ten videotapes.

4. Throughout the project, M-STEP sponsored interstate and intrastate conferences, utilizing well-known consultants and M-STEP personnel in other states. Such conferences have centered around the use of media in teacher education and interaction analysis as used in the classroom.

5. The M-STEP staff has conducted widespread visitation across the state to consult, encourage, and promote the utilization of resources produced by South Carolina M-STEP.

Adopting the theme, "Commitment to Improvement in Teacher Education," South Carolina state M-STEP stirred the imagination and resourcefulness of professional people from all segments of the education community. It is no exaggeration to say that the climate has become receptive to changes in the entire area of teacher education in the state, and it is felt that this is due, at least in part, to forces set in motion by the M-STEP project.

The State Department of Education is definitely moving from its position as an agency which "regulates" to one best characterized as that of providing effective leadership and coordination in teacher education. The twenty-two colleges in the state preparing teachers have widely differing programs at the present time, but M-STEP has been a vehicle through which constructive interchange and sharing of ideas and practices in the training of teachers has taken place among colleges and the public schools.

At the same time, college and public school personnel have come together for exploration and study of common problems in teacher education. Horizons and possibilities for improvement have been expanded through the efforts of M-STEP to make available to college and public school personnel outstanding leaders in the field of teacher education and student teaching. M-STEP staff members have attended clinics, workshops, and institutes in each of the other compact states to become more fully aware of current developments in teacher education. These trends have been passed on to appropriate education persons in the state.

It is impossible to say whether the present thrust toward improving teacher education in South Carolina is a result of M-STEP or merely coincidental with it. It is true, however, that there is a great desire to improve teacher education programs and that the State Department of Education is being looked to for leadership in effecting improvements which are recognized as necessary. There seems to be a general feeling of confidence in the ability of the State Department to fill this vital leadership role.[2]

Perhaps the greatest impact of M-STEP for both the present and future has been the cooperative involvement and utilization of the individual and combined strengths, skills, and imagination of the state's educators in a project designed to "open the door" to improved teacher education programs. Dialogue and idea interchange have begun, and introduction to better practices in the twenty-two teacher preparation programs in the state is likely to continue.

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[2] Requests for leadership and services of the Office of Teacher Education and Certification personnel are now being made in areas other than certification.

SOUTH CAROLINA M-STEP PRODUCES RESOURCES FOR TEACHER EDUCATION PROGRAMS

I. Handbook for Student Teaching

Published in July 1967, the *Handbook for Student Teaching* was eagerly received throughout South Carolina. The distribution of this significant publication was directed toward three major groups in the state:

1. Each teacher preparation institution in South Carolina received an initial mailing of fifty copies to be distributed among its faculty and those involved in its teacher preparation program at any level.
2. All public school personnel involved in teacher preparation, including superintendents, principals and cooperating teachers.
3. All professional education organizations at the state and local level.

As requests for additional handbooks have been received, the pattern of securing a copy for each student teacher is becoming clear. The twenty-two widely divergent programs of teacher preparation in the state are being influenced by a publication of the State Department of Education and the Multi-State Teacher Education Project.

The M-STEP staff was involved in widespread visitation to discuss with educators the *Handbook for Student Teaching* and methods for successful implication of its principles in teacher education programs. The visitation involved each teacher preparation institution in the state, public school personnel and Title III Regional Education Centers.

II. Multi-State Teacher Education Project Television Resources

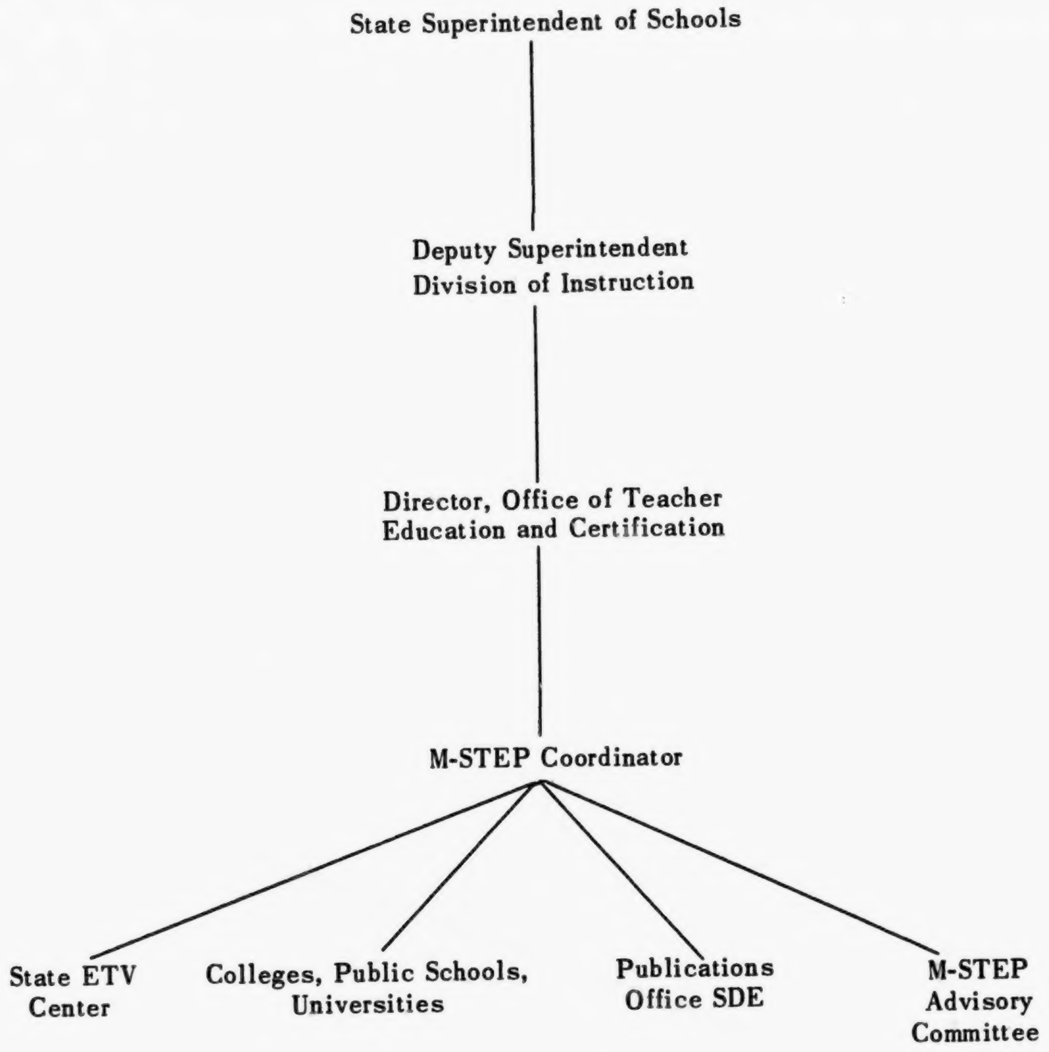
In South Carolina, the M-STEP efforts were directed toward use of video processes in teacher education. Because of extensive educational television facilities present in the state, it was possible to produce a series of ten videotapes concerned with significant aspects of student teaching.

These tapes, which endeavor to portray vividly and realistically some of the basic principles and theories applicable to student teaching, are not intended to replace effective patterns and procedures now in use in the colleges and public schools but rather to enrich and complement in a very meaningful way the best in teacher education programs. Each tape is a complete entity and may be used at any appropriate stage in the pre-service program of a prospective teacher. The areas covered by the tapes are neither exclusive nor all-inclusive; nor are they presented as the absolute ideal in technique or example. Instead, they are designed to foster and stimulate discussion by those concerned with improving preparation programs. Study guides for use by colleges, public schools, and student personnel are available.

SOUTH CAROLINA ATTACHMENT A

M-STEP Organization Chart

The South Carolina M-STEP organization as it relates to the State Department of Education is charted below:


State Superintendent of Schools
Deputy Superintendent Division of Instruction
Director, Office of Teacher Education and Certification
M-STEP Coordinator
State ETV Center
Colleges, Public Schools, Universities
Publications Office SDE
M-STEP Advisory Committee

ATTACHMENT B

The Structure of South Carolina M-STEP

In South Carolina, M-STEP is an integral part of the Office of Teacher Education and Certification and relates directly to the function and activities of that office,while at the same time extending the scope and degree of leadership of that office. The creation of M-STEP made possible added personnel for the state department to assist in teacher education activities.

External to the State Department of Education organization were the M-STEP Steering and Advisory Committees and the South Carolina Association for Student Teaching provided advice to the M-STEP project as it produced a *Handbook for Student Teaching* and a series of ten videotapes dealing with significant aspects of student teaching.

M-STEP Committees

Basic to the success of M-STEP in South Carolina were the committees, both existing and newly formed, which served in an advisory and working capacity to the project.

The first of these groups was the Teacher Education Council of South Carolina, which is constituted of professional educators to consider problems concerning teacher education and certification and to make recommendations to the Office of Teacher Education and Certification to be considered by the State Board of Education concerning both present and proposed programs of teacher education. This group served in an advisory capacity.

The second group to be involved was the Steering Committee of M-STEP, organized early in the project to help decide objectives, priorities, and procedures. Out of this five-member group and other educational personnel from across the state came the sub-committee charged with the responsibility for development of a *Handbook for Student Teaching*.

As plans for developing the series of videotapes proceeded, the need for additional direction from the steering committee and other educational and technical sources became evident. The necessity for careful and continuous planning by project staff members in the production of videotapes resulted in the need for greater involvement and cooperation by many persons from colleges, public schools, professional organizations, and educational television. This direction was both desirable and essential in the making of good quality tapes.

To make possible the production of videotapes in student teaching which would result in improved teacher education programs, the original

Steering Committee of five members from institutions of higher education was expanded to include representatives from public schools and educational television. The new Advisory Committee consisted of thirteen members, exclusive of the project staff. It was felt that such a committee, representing administration, curriculum, methods, educational psychology, instruction, elementary, secondary, several teaching areas, student teaching, and educational television would provide the breadth and depth needed to guide the project in the production of good videotapes.

ATTACHMENT C

Multi-State Teacher Education Project
Advisory Committee
1967-68

Elementary Supervising Teacher (Third Grade)
Satchel Ford Road Elementary School
Columbia, South Carolina

Associate Professor of Education (Educational Psychology)
University of South Carolina
Columbia, South Carolina

Professor of Education (Curriculum and Student Teaching)
Clemson University
Clemson, South Carolina

School of Education (Secondary and Student Teaching)
University of South Carolina
Columbia, South Carolina

Assistant Professor of Education (Reading--Elementary)
Winthrop College
Rock Hill, South Carolina

Assistant Superintendent of Instruction (Administration, Supervision and Instruction)
Brookland-Cayce School District
Cayce, South Carolina

Professor of Education (Secondary and Student Teaching)
Furman University
Greenville, South Carolina

Secondary Supervising Teacher (English)
A. C. Flora High School
Columbia, South Carolina

Horry County Coordinator of Instruction
Conway, South Carolina

Associate Director of Education
South Carolina Educational Television Network
Columbia, South Carolina

(continued, next page)

Assistant Professor of Education (Elementary and Student Teaching)
Erskine College
Due West, South Carolina

Director of Teacher Education
South Carolina State College
Orangeburg, South Carolina

Robert Smalls Elementary School (Elementary School Principal)
Beaufort, South Carolina

Ex-Officio State Department of Education

Dr. George W. Hopkins, Project Director

Dr. H. Boyd Israel, Coordinator

Miss Frances Hudgens, Assistant Supervisor

ATTACHMENT D

"The Multi-State Teacher Education Project In South Carolina Utilizes Television In Teacher Education"[1]

On June 22, 1967, the State Department of Education, Division of Teacher Education and Certification, hosted a statewide conference on the uses of television in teacher education. This conference was an outgrowth of the Multi-State Teacher Education Project activities in South Carolina.

Adopting the theme "Utilizing Television in Teacher Education," the one-day video institute involved representatives from thirteen of the state's teacher preparation institutions and public school personnel. In bringing together these persons responsible for teacher education, the institute had as its main purpose "to explore ways television and videotapes can be used in the preparation of teachers and to examine different types of television equipment currently on the market that can be employed in the classroom."

Underlying the day's program were six main objectives:

1. To encourage colleges to use television in their regular college courses.
2. To prepare future teachers for use of television in instruction.
3. To encourage the use of television in student teaching processes.
4. To display and demonstrate portable videotape equipment.
5. To view segments of tapes produced by the South Carolina Multi-State Teacher Education Project.
6. To encourage interaction between colleges in South Carolina as to their activities in using television in teacher preparation.

The video presentation was a sixty-minute videotape illustrating ten uses of television in teacher education. This tape, "Using Television in Teacher Education," was structured around the ten categories suggested by the Multi-State Teacher Education Project, as an outgrowth of its work with video media.

Conference delegates were divided into three groups, each group

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[1] A report prepared by South Carolina staff.

viewing two 30-minute segments of the tape and meeting with representatives from video equipment companies to receive instruction and information on the equipment that could feasibly be utilized in college classrooms across the state.

One of the direct outgrowths of this M-STEP video institute was the request that four to six similar regional institutes be held across the state. Realizing that a far greater number of educators could be reached through such meetings, the M-STEP staff planned six one-day video institutes throughout the state during the first two weeks of December. These institutes were held on college campuses and involved college and public school personnel engaged in preparing teachers.

Perhaps the most far-reaching result of the M-STEP video institutes is the new and improved image of teacher education, particularly that phase called "student teaching." A constant dialogue, both interstate and intrastate, has been fostered and stimulated, centering around the need for improving laboratory experiences of teachers. Through its activity in the area of videotapes, South Carolina M-STEP is offering to South Carolina educators one possible method of complementing existing practices in teacher preparation programs.

Through M-STEP "commitment to improvement," the State Department of Education is assuming the role of providing effective leadership and coordination in teacher education. Constructive interchange and sharing of ideas and practices in the training of teachers is being evidenced more strongly each day as the State Department of Education moves away from its time-honored position of "regulator" and assumes its rightful role of dynamic leadership, coordinating the efforts, programs, and thinking of the twenty-two colleges that prepare teachers in the state.

In South Carolina the Multi-State Teacher Education Project is a cooperative involvement and effort of those persons most intimately involved in teacher preparation. It is drawing on the combined and individual strengths, skills, and imagination of the State Department of Education, the Educational Television Commission, public and private colleges that prepare teachers, and the public schools, who share in the responsibility of improved teacher education programs and receive the products of these programs as the teachers of tomorrow.

M-STEP in Utah

AT the time of the inception of the Multi-State Teacher Education Project in Utah, professional laboratory experience programs had undergone little change over a period of years. While we may agree with Conant in his observation that "the one indisputably essential element in professional education is practice teaching,"* it has nevertheless been argued that assigning potential teachers to be shaped and molded into the image of the established practitioner tends to stifle innovation and to impede progress toward the improvement of teaching. The introduction of innovative practices in student teaching and other professional laboratory experiences has been difficult because of the perpetuation of traditional patterns. For this reason desirable procedures, in most cases supported by valid research, have been slow to find acceptance.

Development of new media such as the videotape recorder has had significant implications for teacher education. Reduction in costs has made it possible for such equipment to be used exclusively by school districts as well as by preparing institutions. The new media make it easier to simulate, analyze, discuss, and evaluate the teaching act and to break it down into component parts.

In the summer of 1965 a quick survey was made at the conference of the National Association of State Directors of Teacher Education and Certification. The question was asked, "If Title V money were made available, what in your opinion would be the number one priority in your state for teacher education improvement?" Utah and a preponderance of other states responded, "Student teaching internship or laboratory experience."

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*James B. Conant, *The Education of American Teachers* (New York: McGraw-Hill, 1963), p. 142.

With the introduction of M-STEP, the state education agency demonstrated renewed interest in the professional laboratory experience phases of teacher education. When funds became available under Title V of the Elementary and Secondary Education Act of 1965, a Specialist in Teacher Personnel and Professional Relations was added to the staff of the state superintendent and assigned specific responsibilities with regard to student teaching and other phases of teacher education.

Utah M-STEP Objectives

Utah developed its program in accordance with the overall M-STEP objective of strengthening state departments of education by providing leadership in the development of joint responsibilities for the preparation of professional personnel. Utah developed and used instructional media to improve laboratory experiences in preservice and inservice education, encouraged innovative modification in teacher internship programs and student teaching block programs, and assisted further in the expansion of the student teacher center concept.

Utah M-STEP has been primarily concerned with the four processes listed below as they relate to strengthening the laboratory experience component of teacher education.

1. *Micro-Teaching.* Controlled experiments involving the use of microteaching as a technique in teacher education have been carried out in cooperation with the University of Utah and Brigham Young University.

2. *Interaction Analysis.* A project activity focusing on the analysis of teaching has been conducted in cooperation with Utah State University.

3. *Instructional Analysis.* A "Teacher Behavior Code" and instrument for analyzing instructional procedures have been developed by Asahel D. Woodruff and Janyce Taylor at the University of Utah and published as a Utah M-STEP monograph.

4. *Team Teaching.* A project activity involving the team teaching concept has been developed in cooperation with Weber State College.

5. *Student Teaching Centers.* Cooperation and support have been given to the University of Utah in its attempt to refine and develop the Student Teaching Center concept.

Each of the project activities conducted in cooperation with the various teacher education institutions was built upon sub-objectives. These are listed below.

At Brigham Young University where the primary focus was on micro-teaching as a technique in improving teacher education, the objectives of the program were:

- To prepare videotapes demonstrating micro-teaching techniques
- To identify criteria for and develop videotapes of model teacher havior for use in micro-teaching
- To investigate the practicality of transferring videotaped teaching episodes to 8 mm sound film loops
- To investigate the use of the 8 mm sound-on-film camera to produce teaching episodes directly on sound film loops
- To produce on 8 mm sound film loops examples of various teaching procedures
- To produce a videotape demonstrating a variety of procedures for critiquing micro-teaching sessions.

At the University of Utah, where the emphasis of the project activity was also on micro-teaching or peer-teaching, the objectives were:

- To identify certain teaching behaviors utilizing videotaped peer-teaching sequences
- To produce, evaluate, and code peer-teaching episodes
- To obtain videotaped models of particular teaching skills for use in micro-teaching
- To develop a coding device for the analysis of teaching
- To organize and establish a methods course with micro-teaching as a base
- To develop theory appropriate to the training and translate it into proficiency statements
- To develop more sophisticated and efficient micro-teaching procedures
- To videotape and analyze student teachers' actual work in the schools
- To study the possible use of micro-teaching as a criterion for admission to teacher education
- To develop evaluation designs to assist in determining the value of micro-teaching.

The analysis of teaching was the project activity at Utah State University and the following were the objectives of this program:

- To produce a series of eight 20-minute videotapes in various secondary school subject matter areas which show examples of direct and indirect influences as defined by Flanders in his interaction analysis system

- To use and evaluate these tapes in a new problems seminar accompanying student teaching and in the principles of secondary education courses at U.S.U.
- To use the tapes as the basis for a summer inservice program for cooperating teachers serving the U.S.U. teacher education program.

At the College of Southern Utah, the primary focus was on the development of recorded classroom episodes for use in professional laboratory experience programs. Objectives were:

- To produce a series of videotaped classroom episodes
- To provide on-the-job training in the use of the VTR for professional personnel working with student teachers
- To determine whether or not video processes have potential for reducing the amount of *pre-student teaching laboratory* experience in actual classroom situations
- To determine some of the problems created by the new media as they relate to building plans and needed curriculum change
- To discover some of the problems which may develop between the college and the public schools with regard to the professional performance and commitment of public school teachers
- To upgrade teaching competence by self-analysis of performance.

At Weber State College various aspects of team teaching were examined with the objective in mind of producing a videotape on the dynamics of team teaching to include:

- Definition and purpose of team teaching
- Team planning
- Facilities to accommodate the team concept
- Personnel of the team
- The team leader and his responsibilities
- Establishment of team organization, philosophy, and curriculum objectives
- Student-teacher relationships
- Contribution of resource centers
- Scheduling students' and teachers' time
- Changes in teaching techniques
- Role of guidance personnel
- The team in action.

Weber State College also cooperated in the production of a videotape on motivating for creativity at the elementary school level.

STATE ORGANIZATIONS

Organizational Structure

N. Blaine Winters, Administrator of the Division of Teacher Personnel served as M-STEP Director for Utah and as a member of the M-STEP Coordinating Board. Vere A. McHenry, Specialist, Teacher Personnel and Professional Relations, served as Utah M-STEP Coordinator.

The plan of procedure for M-STEP in Utah took the form of a cooperative enterprise, including the State Department of Education, the six teacher education institutions, and several school systems. Initially, the state education agency entered into contracts with the various teacher preparation institutions. This proved to be a highly desirable development, since it served to get most of the institutions directly involved in the project at the very beginning. Brigham Young University, the University of Utah, and Weber State College, in cooperation with the Weber County School District, had excellent video production facilities at the outset of the project and the College of Southern Utah acquired the necessary equipment to assume a limited production role. Other goals of the project which also elicited special interest on the part of the universities included the development of teacher education centers, the analysis and codification of teaching behavior, and the use of team teaching procedures.

A very favorable climate for change existed in the preparing institutions and this was complemented by a high degree of commitment to improvement in teacher preparation on the part of the state education agency. The complete involvement and cooperation among the institutions contributed greatly to the success of the project.

Following the Planning Conference at Park City, in July, 1966, an M-STEP Advisory Committee was organized with representation from the state education agency, teacher education institutions, local school districts, and the organized profession. This committee met periodically throughout the project period to advise on various aspects of the program.

The M-STEP Advisory Committee met periodically during the project, and made valuable contributions to its direction and success. Vere A. McHenry, Utah M-STEP Coordinator, served as chairman, with the following as members of the committee:

Deputy Superintendent for Instruction,
Utah State Board of Education

Administrator, Division of Teacher Personnel,
Utah State Board of Education

Educational T.V. Specialist,
Utah State Board of Education

Administrator,
Division of Instructional Media,
Utah State Board of Education

Assistant Superintendent
Granite School District

(continued next page)

Dean,
School of Education,
College of Southern Utah

Dean,
School of Education
Weber State College

Assistant Dean,
College of Education,
Weber State College

Assistant Dean,
College of Education,
University of Utah

Chairman,
Department of Teacher Education
Brigham Young University

T.V. Producer-Director,
Utah State Board of Education

Dean,
College of Education,
Utah State University

Communications Media Specialist,
Weber State College

Superintendent,
Iron County School District

Assistant Executive Secretary,
Utah Education Association

Broadcast Services Specialist,
Brigham Young University

Outcomes of M-STEP in Utah

Coordination of M-STEP activities has enhanced the leadership role of the state education agency. Teacher education institutions and local education agencies have expressed appreciation for strong state support and leadership in activities aimed at the improvement of preservice and in-service programs. This has not constituted a new channel of operation for the state department of education, but it has added considerable stimulation to the process of effecting change and improvement.

The state education agency will continue to coordinate programs through the Division of Teacher Personnel, and will continue to encourage promising innovation in teacher education programs. Through the existing state-wide Advisory Committee on Student Teaching, institutions will be encouraged to discuss program changes and share ideas in an attempt to mount a continuing effort in the quest for quality in teacher education.

M-STEP activities have provided a means whereby inter-institutional stimulation and communication have been enhanced. Periodic conferences and meetings of the M-STEP Advisory Committee have provided opportunities to share ideas and disseminate information among the various teacher education institutions.

All six Utah teacher education institutions have been involved in the project and five of the six have procured VTR equipment. There is evidence that the use of this new medium is increasing rapidly. From an experimental beginning, micro-teaching at Brigham Young University has expanded until all secondary education majors now have an opportunity to micro-teach as a regular component of the teacher-education sequence. Widespread use of the micro-teaching technique is also in evidence at the University of Utah. Both the University of Utah and Weber State College are experimenting with the "mini-course" in teacher education. This is an adaptation of micro-teaching. The College of Education at Utah State University has obtained a considerable amount of equipment and is building upon the foundation laid by its M-STEP activities in instructional analysis. The College of Southern Utah is moving into the area of micro-teaching. At Brigham Young University a small building just off-campus has been remodeled and dedicated for use in experimental teacher education programs. The facility includes a well-equipped micro-teaching studio, classroom and office space. Both the University of Utah and Utah State University have established videotaping and micro-teaching studios and are continuing to acquire equipment needed to expand new programs. Weber State College and the College of Southern Utah have obtained videotape recorders and auxiliary equipment and are doing some experimentation with micro-teaching.

Several materials and publications have been produced through the efforts of Utah M-STEP. Among these are:

Proceedings of the Planning Conferences held at Park City in July 1966.

A list of films and videotapes produced by Utah.*

M-STEP Monograph #1, *The Use of Video Processes in Teacher Education*, published October, 1967.

M-STEP Monograph #2, *The Individualized Secondary Teacher Education Program at Brigham Young University*, published April, 1968.

M-STEP Monograph #3, *A Teaching Behavior Code*, published December, 1968.

Utah M-STEP Monographs Number 2 and Number 3 are reprinted in later chapters of *Teacher Education in Transition*, Volume I. Several articles and manuscripts developed by Utah institutions and by the Utah State Department of Education have been published by professional journals of national circulation, by national professional societies, and professional organizations and by the M-STEP central office.

A number of preparing institutions and a few school districts in Utah are making good use of videotapes, films, and other materials produced as a result of the project. Many requests for these materials have come from other states, especially those involved in M-STEP.

A bank of video materials has been developed for use in the teacher

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**A List of Video Materials for Teacher Education* (Salt Lake City: Utah State Board of Education, January, 1969).

education programs in Utah as well as in the other M-STEP states and elsewhere. These materials are listed in the Appendix of *Teacher Education in Transition*, Volume II.

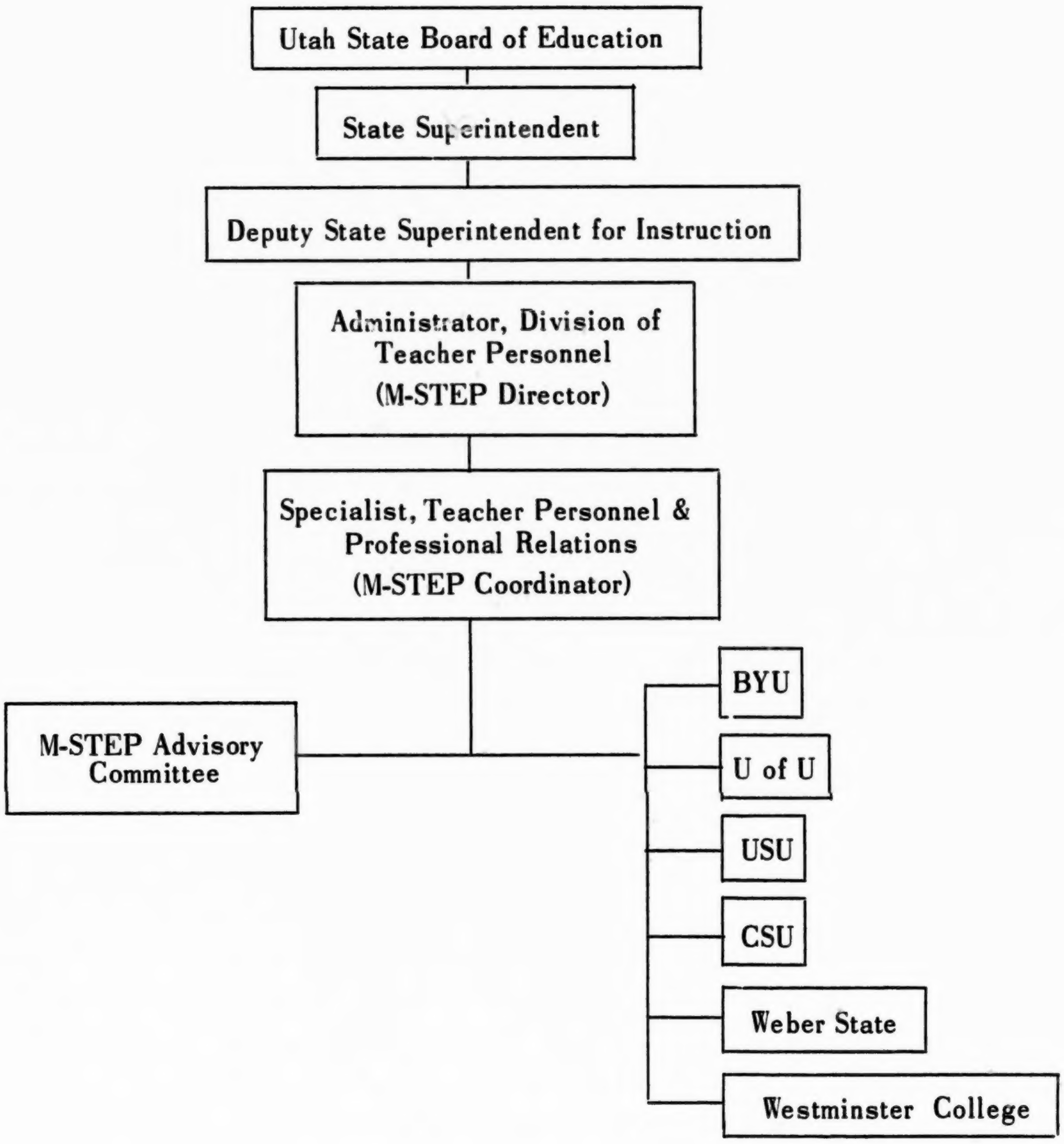
Utah has benefited greatly from the interstate cooperation aspects of the project, particularly in that it has been able to share in activities being carried out in the other M-STEP states, and also to offer some leadership with regard to innovative modifications in teacher education programs. Participation by representatives of other M-STEP states in the Utah M-STEP conferences has resulted in considerable cross-fertilization by sharing of ideas. The Utah M-STEP director and coordinator, and a number of other individuals in the forefront of M-STEP activity in Utah have participated in conferences and special workshops in other states of the compact, which has served to further disseminate innovative ideas and practices.

There is an ever-increasing amount of evidence that Utah teacher education institutions are aware of the need for continued innovation and experimentation in an effort to improve the preparation of teachers, and that M-STEP has played a major role in this awareness. Requests for state approval of innovative modifications in teacher education programs have increased since the inauguration of M-STEP, and many of the regular programs are displaying a "new look" marked by the liberal use of media in an attempt to bring more reality into the professional education sequence.

Several projects submitted for consideration under the new Education Professions Development Act show a definite relationship to M-STEP activities and will probably draw on M-STEP experiences as the phase-in of the new projects is accomplished.

ATTACHMENT A

Utah M-STEP Organization


Utah State Board of Education
State Superintendent
Deputy State Superintendent for Instruction
Administrator, Division of Teacher Personnel (M-STEP Director)
Specialist, Teacher Personnel & Professional Relations (M-STEP Coordinator)
M-STEP Advisory Committee
BYU
U of U
USU
CSU
Weber State
Westminster College

ATTACHMENT B

The Production of Model Teaching Episodes
A Report of M-STEP Activities at Brigham Young University 1967-68*

This is a report of project activities at Brigham Young University during the final year of a seven-state teacher education project. Description of previous activities are reported elsewhere within the M-STEP project. Staff members worked in four areas of teacher education and each is briefly described in this report. More detailed written descriptions of the work done in two areas are appended to this report. A third area is described in more detail in reference cited.

Super 8mm Recordings of Model Teaching Episodes

Part of the project this year was to investigate the feasibility and comparative costs of recording brief teaching episodes on 8mm film. Because of the high cost of recording teaching episodes on videotape and using the episodes with relatively expensive play-back equipment, or transferring the videotape recordings to black and white kinescopes, we investigated two alternatives. The first alternative is to make a videotape recording of the teaching episode, then transfer that recording directly to super 8mm film and package it in a cartridge for ready access to students. The second alternative is to film the teaching episode directly with a synchronized sound super 8mm camera and then package the film in cartridge form. A series of short teaching episodes was filmed and prepared using each of the two processes; then processing costs for each were investigated. Sample films are available at Brigham Young University for comparison of quality.

In addition to the above described activities, we further defined critical teaching behaviors and produced some additional model videotape recordings of these behaviors. These model videotapes are being used in the teacher education programs at Brigham Young University and are available there for examination.

Evaluating Teaching Episodes

In an attempt to provide training materials to improve the effectiveness of supervisors and interns and student teachers, a 25-minute videotape has been prepared entitled "Evaluating Teaching Episodes." In an illustrated lecture, the narrator first describes the use of evaluation forms in super-

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*Other reports of M-STEP affiliated activities in Utah colleges and universities will be found in later chapters of *Teacher Education in Transition*, Volumes I and II.

vising teaching episodes. He then proceeds to show how these forms are used by a supervisor who is observing and working with a secondary teacher in a private one-to-one relationship. From this somewhat directive beginning, supervision proceeds toward the goal in which a teacher, using evaluation forms on which are listed certain criteria for performance, is able to observe his own teaching, make judgements about the performance, and take steps to correct identifiable deficiencies.

Accompanying the videotape is a set of evaluation forms, each designed to help the observer of a teaching episode look at a specific subset of teacher behaviors and react accordingly. The task of identifying critical teaching behaviors and then preparing appropriate evaluation tools to help supervisors who work with teachers will continue at Brigham Young University.

The Use of Videotapes for Teacher Employment Interview Purposes

During the spring semester of 1967, an experiment began in which we attempted to determine whether or not short videotaped recordings of teachers could substitute for a personal interview with a prospective employer. Five secondary student teachers conducted a brief concept lesson to a group of secondary students. The lesson was video recorded. One group of secondary school administrators, acting as employers, examined the confidential employment files of each of the student teachers and then interviewed each of the teachers. Following the interview, the teachers were rated as to their desirability for future employment. Another group of administrators, without a personal interview, studied the employment folders and viewed the videotaped recordings of each of the five prospective teachers. Following the viewing, these administrators judged the students as to their desirability for employment. A third group of administrators, without a personal interview and without seeing the employment folders, viewed the same videotaped recordings of the teachers' lessons and judged the same five teachers as potential employees. Comparisons were made to determine how adequately the videotape recordings of teachers' performance could be used as a substitute for personal interviews.

An Individual Secondary Teacher Education Program

Upon the request of representatives of the Utah State Board of Education, a monograph was prepared describing the Individualized Secondary Teacher Education Program at Brigham Young University. This monograph describes the rationale and some of the preliminary research which has been done in connection with the Individualized Teacher Education Program. It continues with a listing of all of the behavioral objectives used in the program. Also included are descriptions of how a student proceeds to work through the program, how the program is organized within the University, and a brief statement about plans for future individualization of the teacher education activities at Brigham Young University. This monograph has been published under the title *The Individualized Secondary Teacher Education Program at Brigham Young University, M-STEP Monograph Number 2,* and is available at Brigham Young University or the Utah State Board of Education. Work on this program has continued since the termination of the M-STEP project.

M-STEP in Washington

THE Washington State M-STEP was designed to foster and explore better ways of relating preservice teacher education to inservice teacher education. Following logically from the patterns of teacher preparation and certification developed in the State of Washington over the past several years, [1] the M-STEP project is bringing together the laboratory experiences typically provided in the senior year of college with the inservice training experiences given teachers during their first two years of teaching.

The initial phase of the Washington M-STEP project involved three school districts and three colleges/universities in sets of cooperative arrangements:

Set #1. The Bellevue Public Schools and Washington State University

Set #2. The Edmonds Public Schools and Western Washington State College.

Set #3. The Seattle Public Schools and The University of Washington.

Students from the university of each set were "pre-hired" by the school district of the same set. Pre-hiring consists of a commitment between the participating students and the participating school district: school district authorities will agree to employ the participant when he graduates assuming that the remainder of his college work is satisfactory, and the student will agree to teach in the district for at least two years after he graduates. During these teaching years, the student will be expected to continue his college work leading to the completion of the fifth college year, or master's degree, and standard certification.

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[1] Washington State pioneered in the development of a five year program of teacher certification: a provisional teaching certificate is issued upon graduation from an approved teacher education program, and a standard certificate is issued after two years of successful teaching experience and the completion of a fifth year of college.

The main thrust of the project was based upon the assumption that if the faculty of the university or college could know exactly where their students were going to be placed, they could adjust or tailor their program better to meet the needs of individual students and, at the same time, relate the program to the needs of the district. Likewise, the assumption was made that if the school district were to know a year in advance who would be employed from the college or university, personnel from the district could participate more fully in the preservice program of the university. The professional laboratory experiences provided by the district for these students might be more appropriately planned; first-year orientation programs and first-year assignments might be redesigned for these selected students. Active participation by professional associations and societies in the orientation and induction of new teachers might be instituted, and faculty of the college or university and the school district would be interested and involved in the professional development of the same students over a span of three years, the fourth year of college, and the first and second years of teaching.

Local Coordinating Committees

To plan and coordinate the activities of the project within each school district-university set, a Coordinating Committee for each set was organized, consisting of representatives from the university or college and from the school district. The M-STEP project director for Washington, serving as consultant and research investigator during the course of the project, met regularly with the Coordinating Committees to keep each informed of his activities. The Coordinating Committees from the three university-school district sets met as a single group periodically to share information from one part of the project to another. The Teacher Education Standards Revision Committee, advisory to the State Board of Education and the State Superintendent of Public Instruction, served as the Project Advisory Committee. The design and administration of the M-STEP project for Washington was under the surveillance of this committee.

Objectives of Washington State M-STEP

The following M-STEP objectives were developed for the State of Washington:

1. To improve university-school district-professional association cooperation in teacher education.

2. To better define the responsibilities and role of the following agencies in teacher education:
    a. The State Department of Public Instruction
    b. Colleges and universities
    c. School organizations
    d. Professional associations.
3. To articulate preservice teacher education with the placement and the inservice education of teachers and for university-school district models.
4. To make the first two years of teaching an integral part of the state teacher education program.
5. To establish a model for state leadership in teacher education to include:
    a. Ways of working with districts and colleges
    b. Developing intrastate communication
    c. Stimulating research and experimentation
    d. Establishing experimental models.
6. To examine the effects on teaching performance of early commitment by students in college to specific assignments in selected school districts.
7. To begin a study of the feasibility of the "systems approach" to teacher education programing.
8. To review the pacing of professional education experiences provided by colleges and school districts.
9. To develop a means for improving the way school principals serve teacher education on the job.
10. To establish liaison and communication with other states.
11. To assist and advise agencies in the state regarding the relationship between teacher education and the social imperatives of our time, e.g., minority group problems, urban problems, human relations problems.

At the same time that the State of Washington was working on its own particular objectives, the state also had responsibility for the overall objectives of the seven-state project. The M-STEP project was based on four major purposes:

1. The development of new model programs for teacher education in which state departments of education, school districts, and colleges work together. This was the primary focus of the Washington M-STEP program (see "Objectives" above).

2. The examination and use of video processes in teacher education.
3. The improvement of laboratory experiences in teacher education generally.
4. The development of interstate cooperation in teacher education enterprises.

Other special features of the M-STEP project for Washington State include:

1. *A longitudinal study of participants.* Considerable base line data are being collected on the students who participated in the project. Their performance in student teaching and during their early years of teaching are being appraised and noted, using the best techniques available, including the use of videotaping equipment. The Washington project director plans to continue to study the initial participants in the M-STEP experiment for at least the next ten years.
2. *A comparative study of non-participants.* Students chosen at random from the same colleges or universities involved in the M-STEP project, but who were not selected as participants in the project, will be studied for comparison with the selected group.
3. *A study of career versus non-career teachers.* It is generally believed that the decision to make teaching a career occurs during the early years of teaching. It is expected that data relative to career development will be assembled and analyzed.
4. *A review and study of the pacing of professional experiences.* It is intended that Coordinating Committees will review the sequence and pacing of professional experiences in teacher education. The following questions are illustrative of the pacing problem: When should the special methods of teaching any subject be presented? When should the teacher's role in guidance be taught? When should team teaching be introduced? When should teacher aides or assistants be provided?
5. *An exploratory study of the role of the State Department of Education in stimulating graduate training and research in teacher education.* In cooperation with the senior colleges and universities, it is hoped that the research needs of the state in teacher education will be identified and that qualified research scholars can be recruited or developed to meet those needs.
6. *An exploratory study of new or better ways of university-school district cooperation in teacher education, particularly with reference to staff utilization.* Coordinating Committees have endeavored to identify and

share the available talent in both the university and the school district for the improvement of preservice and inservice teacher education.

7. *An investigation of new or better ways of individualizing teacher education.* The project is giving particular attention to description of the individual talents of and specific experiences provided for the selected participants. Although all the data relative to the participants have not been shared (because of its confidential nature), data available to the university and school district have been related to the kinds of experiences or programs provided to the participants.

8. *An exploratory study of the role of the building principal in teacher education.* Assuming that public school systems will provide more and more laboratory or internship-type experiences in teacher education, the building principal may become a key person in teacher education. How should the instructional supervision and leadership available in the school district be used in teacher education?

9. *A study of the role of the professional association in teacher education.* Although local, state, and national teacher organizations have been very active and influential in the improvement of teacher education, particularly through Teacher Education and Professional Standards Committees or Commissions, little has been done to define those phases of teacher education that can be improved by voluntary organizations or associations. In cooperation with the Washington Education Association, it is expected that project-oriented committees will explore better ways for universities, school districts, and local professional organizations to share the tasks concerned with teacher preparation and improvements.

PILOT PROJECTS

1. *The Bellevue Public Schools-Washington State University Project.* This project has focused on the development of a systemic approach to teacher education based on performance criteria.

   A coordinating committee consisting of three professors and two advanced graduates from Washington State University and five persons from the central administrative staff of the Bellevue schools discussed a number of topics in their early meetings including: Were there particular skills or competencies Bellevue sought in employing teachers? What were the general weaknesses and strengths of beginning teachers? Specifically from WSU? How well did the preservice courses at WSU mesh with the inservice needs of the Bellevue schools?

Activities of Local Committees

It was decided that a list of desirable teaching behaviors would be drafted, based on a teacher competence study developed by the Bellevue Education Association in 1965. This list of behaviors would be organized into a sequence of learning tasks, and a systematic scheme would be developed to help educate selected students to deal adequately with these tasks. A subcommittee of the coordinating committee was asked to identify the specific teacher behaviors and begin organization of the learning tasks.

A second subcommittee began working on administration and resource coordination efforts. This subcommittee investigated the nature of the agreements or commitments which were to be consummated between the university and the school system. The fact that Bellevue, a suburb of Seattle, was 300 miles from the site of the campus of Washington State University at Pullman, posed some difficult logistics problems. Because WSU did not have a student teaching resident center in Bellevue, it was necessary that planning begin for the establishment of such a facility. (WSU does have a number of resident student teaching centers throughout the state, e.g., Spokane, Moses Lake, Tacoma, etc.)

A third subcommittee began work on the recruitment and selection of students for the program. A number of decisions had to be made: How many participants should be selected? Should they be from both the elementary and secondary levels? What inducements were present to get the students interested? At what point in their college program should students be shunted into the M-STEP program? How would students be selected and by whom?

A fourth subcommittee looked into the research and information-gathering aspects of the proposed arrangements. Once selected, what information was needed about each participant? When and how would it be gathered? How could the project be evaluated? Could the M-STEP students be compared statistically with the non-M-STEP students? If a research design were created, what baseline data were required?

The four subcommittees first met in Bellevue and a few weeks later on the WSU campus. A flexible schedule was generated to see what would have to be done by what time in order for students to be selected by early Spring of 1967.

Instead of enrolling in the regular senior program in professional education, students in the M-STEP program were assigned twenty-five instructional tasks to be undertaken on an individual basis. Students engaged in the same task at the same time were encouraged to work together. The judge of whether or not the student was able to successfully complete the task was the student himself, based on feedback data provided to him by the instructional system, his peers, the faculty, video and audiotapes, etc.

During the second semester of their senior year, participants in the Bellevue-WSU M-STEP project spent their entire time in Bellevue as student teachers. (Normally, WSU students have a half-semester of student teaching off campus and spend the other half-semester taking education courses.) Instead of having all students at the same assumed level of achievement with respect to the performance tasks, each student carried his own assessment of himself to the practical student teaching situation.

In summary, the Bellevue-WSU program possessed the following characteristics:

1. Identification of desirable teaching behavior at Bellevue.
2. Definition of specific tasks to teach desired behaviors at WSU.
3. Organization of appropriate experiences, materials, and facilities to teach the specific teaching tasks.
4. Reorientation of college professors to the individualized method of teaching based on specific performances.
5. Establishment of appropriate guidance resources for students, including sensitivity training.
6. Training of supervising teachers in Bellevue and applying systematically the behavioral approach to student teaching.
7. Establishing close personal relationships between the trainees on the campus and the Bellevue staff.
8. Establishing resident M-STEP supervision in Bellevue during the second semester program.
9. Providing periodic feedback to trainers and trainees on the campus, in the district, and between the district and the campus.

2. *The Edmonds Public Schools-Western Washington State College Project.* This project was designed to provide realism and student identification with teaching in the preservice collegiate portion of teacher education, as well as the coordination of preservice preparation with appropriate educational placement in the school system, and the coordination of inservice teacher education with preservice knowledge and experience.

Consistent with the Bellevue-WSU project, a coordinating committee was formed for the Edmonds-WWSC project. At the outset, it was composed of the assistant superintendent for curriculum and instruction, the director of curriculum, the director of personnel of the Edmonds schools, the director of student teaching, a professor of elementary education, and a professor of curriculum at Western Washington State College.

This committee met alternately in Edmonds, a suburban community north of Seattle, and on the Western Washington State College campus in Bellingham. It should be noted that Edmonds and WWSC had worked together on a variety of enterprises over the years. WWSC has had a resident student teaching center in Edmonds and most of the people on the coordinating committee knew one another prior to M-STEP.

It was agreed that the Edmonds-WWSC group would deal with the entire upper division teacher education program of WWSC and the first two years of teaching in Edmonds. It was felt that if the resources of both the college and the district could be brought to bear upon the training needs of a selected group of students, these students could be master teachers at the completion of two years of teaching. The committee felt that students and faculties should devote their energies to professional/personal development rather than research. Edmonds wanted more and better teachers; WWSC wanted better opportunities for their students with respect to the laboratory phases of teacher education.

After several sessions devoted to changes which could be made in the preservice phases, it became apparent the WWSC faculty was not prepared to alter significantly the design of its undergraduate program for M-STEP students. It was agreed that students would be selected, given visibility to themselves and to their peers, and scheduled into professional education courses together. It was further agreed that selected students would have some tie to the Edmonds School District each quarter for the remainder of their college program.

It became apparent that coordination of the M-STEP program would have to be vested in a pilot project coordinator if the program were to survive. The two agencies (Edmonds and WWSC) faced their problems squarely and were able, using their combined resources, to employ a coordinator for the duration of the project.

The coordinating committee decided to select approximately thirty-five students from sophomore volunteers to participate in M-STEP.

The key idea in the Edmonds-WWSC program was to tie together preservice and inservice teacher education. The professional courses for M-STEP students began focusing on curriculum guides used in Edmonds. The Edmonds school became the regular laboratory for the selected M-STEP students and particular job-alike people in Edmonds were asked to serve as liaison agents between the school district and the students. A preliminary commitment was given by the district that if at all possible, M-STEP students would have reduced teaching loads during the first year of teaching.

The Edmonds-Western Washington State College M-STEP plan and program may be summarized as follows:

1. Separate class sections at WWSC for M-STEP undergraduate trainees.
2. Regular visits to the Edmonds Public School once each quarter (three during the sophomore year, three during the junior year, one during the senior year plus a full quarter of student teaching).
3. The use of microteaching and other video processes in the preservice program.
4. The identification of big brothers and big sisters in the Edmonds School District.
5. Extensive laboratory experiences in Edmonds, including a full quarter of student teaching.
6. A reduced teaching load during the first year of teaching in Edmonds, plus the assignment of master teacher supervisors during the first year of teaching.
7. Completion of a master teacher's preparation program during the second year of teaching in Edmonds.

3. *The Seattle Public Schools-University of Washington Project* also was designed to develop a new program for the preparation of elementary teachers. In addition, the project included an experimental component designed to test the hypothesis that preparation programs in which role decisions about teaching (grade level, type of school, etc.) are made prior to professional preparation are superior to those programs in which role decisions are made after preparation.

The M-STEP idea of combining the teacher preparation resources of the public schools with those of the university received enthusiastic support from both the dean of the College of Education of the University of Washington, and from the superintendent of the Seattle Schools. Both men expressed genuine concern about the prevailing situation and had been dissatisfied with the way town-grown controversies and distrust generated in the past had militated against collaboration. They agreed a change was necessary and felt that M-STEP could be very beneficial.

At the first meeting of the coordinating committee, it was agreed that co-chairmen would lead the group, rotating between the designated leaders, of each agency. The coordinating committee was divided into several subgroups: one sub-committee began developing a research design; a second began a study of participant and teacher selection; and a third subcommittee began to build a new program for elementary teacher preparation based on what seemed feasible at the time.

After several meetings of the coordinating committee, an agreed-upon research design was developed. A re-examination of the design was necessary after the anticipated number of interested students did not apply for admission. Basically, the design called for three groups of prospective elementary teachers from the total number of students in the 1970 graduating class who would eventually teach in Seattle. Group I was the experimental section. This group was to be selected by the Seattle Public Schools, and be given a letter of intent guaranteeing employment upon graduation. They would then go through a new type of preparation program. Group II was control group I and consisted of students who were specially selected by Seattle but who continued in the regular university preparation program. Group III was control group 2 and consisted of students who were not selected by Seattle by virtue of the fact that they did not seek admission to the program.

Data were gathered on the performance of individuals after they had graduated and begun their teaching career. Statistical comparisons were to be drawn between the three groups to see whether or not selection and/or special programing had any effect on performance.

It had been hoped that 150 students would show an interest in the M-STEP plan so that the selection process could have winnowed out about 75; by randomization Group I and II each would have had approximately 35-40 students. When only 90 students indicated an interest, a question was raised about the statistical design and the minimum number needed for the drawing of inferences. It was decided that the interviewing agencies should go ahead with interviewing and that the university would advertise again in the Fall of 1967 to acquire additional M-STEP participants from incoming transfer students.

As a means of using the M-STEP activity for staff development, a committee of representatives from each of the student teaching center clusters was formed and began working on induction and entry problems for the M-STEP participants. Unlike regular students from the university who had undertaken laboratory experiences in the Seattle schools during their senior year of college, M-STEP students were to be inducted into teaching by the school system three years prior to college graduation. In other words, the school system began treating the M-STEP students as part of their professional staff three years before full-time responsibilities were to be undertaken.

In addition to the continuous contact with the cluster schools, it was decided that required professional courses on the campus would be sectioned so that M-STEP students would be together. Assignments given in the required courses were to be focused on and coordinated with the laboratory experiences undertaken at the same time. If, for example, in a course on human development students were requested to study and observe a child in detail, the M-STEP students selected a child for study from one of the schools and utilized school records in the process.

A Local Student Assistance Committee

To coordinate and make best use of the laboratory experiences of the M-STEP students, a committee was formed representing the faculties of the nine elementary schools. The committee consisted of two teachers and one principal, each representing a cluster of three schools, with the responsibility of reporting any pertinent M-STEP information to and from the schools. Also included were two people from the Seattle schools administration central office and two people from the university. It became apparent that if the M-STEP students were to learn the most and be useful to the schools while they were in training, the faculties of the schools would need to be thoroughly prepared to work with the students. The committee, which agreed to meet on a regular basis so that university-school communication could be spontaneous and uninhibited, got to work immediately and carried out social receptions for the M-STEP students in each building. In addition, the general activities to be engaged in during the spring of 1968 were outlined and organized.

The Seattle-University of Washington M-STEP project was planned to continue through the 1971-72 school year. During the time of the project, both agencies were committed to provide supervision and assistance to the selected M-STEP students.

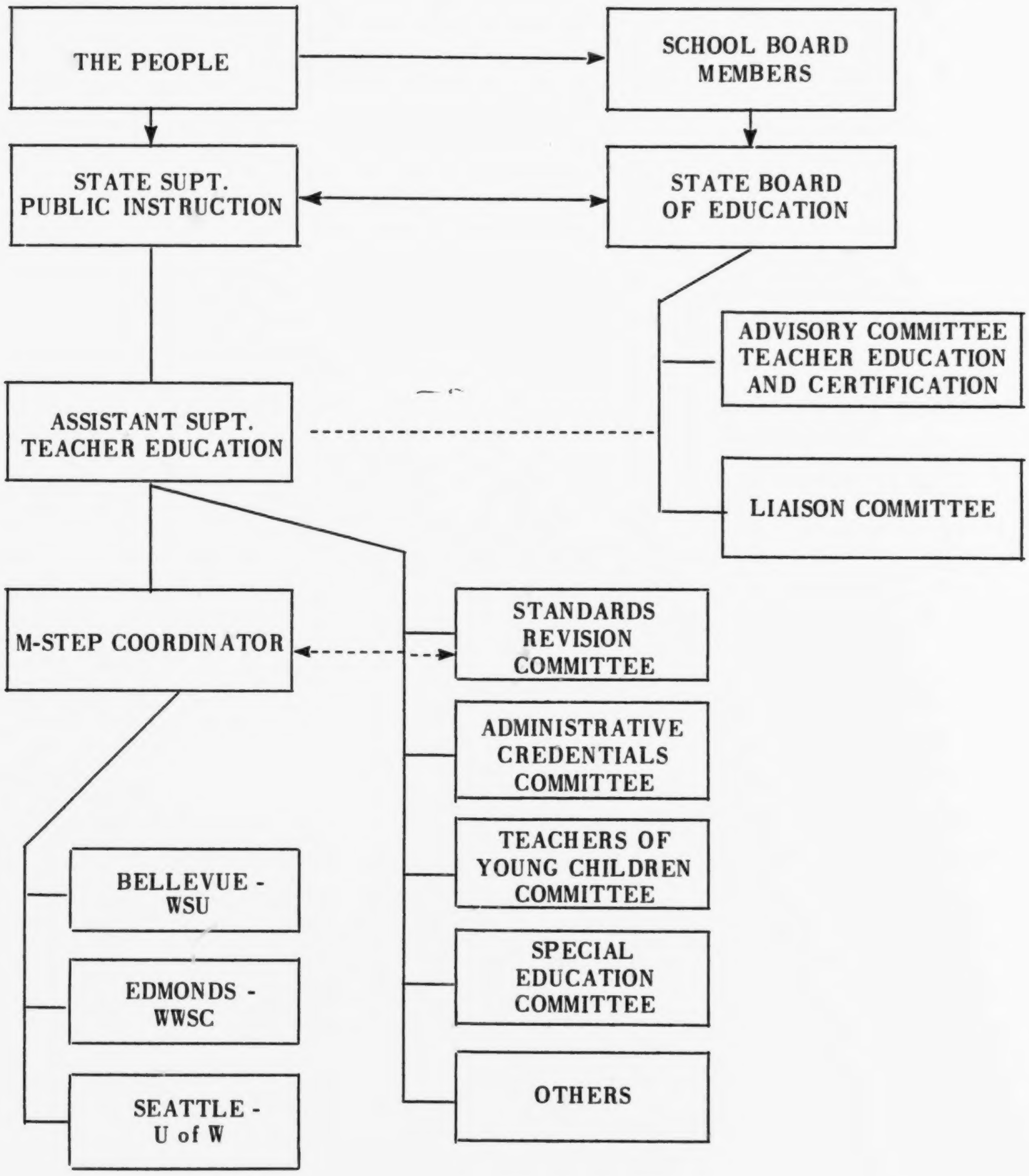
The Seattle-University of Washington M-STEP program may be summarized by enumerating the basic characteristics of the model:

1. The development of an experimental design.
2. The identification of elementary schools based on socio-economic and ethnic characteristics.

3. The clustering of elementary schools so that three types of socio-economic levels are represented:
   a. low socio-economic, predominantly non-white
   b. low socio-economic, predominantly white
   c. middle socio-economic, predominantly white.
4. Development of screening procedures by both the university and the public schools for teacher selection.
5. The interviewing of approximately 150 university freshmen and sophomores as a part of selection.
6. The randomization of students for the experimental group and control group I.
7. The development of a new pattern of teacher preparation based on individual needs beginning in the sophomore year. Participants are directly involved in student teaching part-time or full-time for seven consecutive quarters.
8. The establishment of adequate evaluation procedures to compare performances of students in the various groups.
9. Familiarization and participation in the program by the faculties of the nine selected elementary schools.
10. The employment of special supervisors in the nine elementary schools to coordinate the preservice experiences in the schools with the work on the campus.
11. Study of the characteristics of the nine elementary schools by advanced graduate students at the university.
12. The development of appropriate inservice programs for the trainees after they graduate from the university.
13. Measurement and completion of the research aspects of the program.

ATTACHMENT A

Organization for Teacher Education Showing Place of M-STEP


THE PEOPLE
SCHOOL BOARD MEMBERS
STATE SUPT. PUBLIC INSTRUCTION
STATE BOARD OF EDUCATION
ADVISORY COMMITTEE TEACHER EDUCATION AND CERTIFICATION
ASSISTANT SUPT. TEACHER EDUCATION
LIAISON COMMITTEE
M-STEP COORDINATOR
STANDARDS REVISION COMMITTEE
ADMINISTRATIVE CREDENTIALS COMMITTEE
TEACHERS OF YOUNG CHILDREN COMMITTEE
SPECIAL EDUCATION COMMITTEE
OTHERS
BELLEVUE - WSU
EDMONDS - WWSC
SEATTLE - U of W

M-STEP in West Virginia

BACKGROUND

IN keeping with the objective of the Multi-State Teacher Education Project to ". . . strengthen the capacity of state departments of education to provide leadership in . . . the development of joint responsibility between local educational agencies and teacher education institutions . . ."[1], the West Virginia M-STEP proposal called for establishment of a pilot student teaching program designed to accomplish this aim. Such a center, intended to serve as a model for future centers throughout the state, appeared to be a likely approach because of certain pre-existing conditions in the state with respect to teacher education.

A Climate for Change

A number of positive factors were present which gave impetus to a cooperative approach for finding solutions to teacher education problems.

The West Virginia Board of Education, by legislative mandate, is charged with "supervisory control" over student teaching. The following citation from the West Virginia Code spells out the attitude of the Legislature toward the concept of partnership in student teaching.

Education of teachers in the State shall be under the general direction and control of the State Board of Education, which shall, through the State Superintendent of Schools, exercise supervisory control over teacher preparation programs in all institutions of higher education, including student teaching in the public schools, in accordance with standards for program approval stated in writing by the board. To give prospective teachers the teaching experience needed to demonstrate competence, as a prerequisite to licensure, the State Board of Education may enter into an agreement with county boards of education for the use of public schools. Such agreement shall recognize student teaching as a joint responsibility of the teacher preparation institution and the cooperating public schools and shall include (1) the minimum qualifications for the employment of public school teachers selected as supervising teachers; (2) the remuneration to be paid public school teachers by the State Board, in addition to their contractual salaries, for supervising student teachers; and (3) minimum standards to guarantee adequacy of facilities and program of the public school selected for student teaching. The student teacher, under the direction and supervision of the supervising teacher, shall exercise the authority of a substitute teacher.*

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[1] Original Project Application to the United States Commissioner of Education, February 10, 1966.

Basic Assumptions

Before project action could be developed it seemed desirable that a statement of basic assumption should be designed to support the proposed action. The West Virginia assumptions were as follows:

1. Student teaching is a valid and defensible exercise in teacher preparation.
2. Student teaching programs can be improved.
3. Student teaching programs can best be improved when teacher education institutions, public schools, and state education agencies share in the development and implementation of student teaching programs.

From this point the question became "How can we"? Change was assured, and the direction of change became a challenge.

Participants in Project Development

The concept of a cooperative approach to student teaching, central to the M-STEP proposal, was not totally new to persons who were to become involved in the project. As has been previously mentioned, rather recent legislation provided a framework for supervision at the State level through cooperative efforts and teacher educators were talking and writing about the need for greater cooperation. In addition to these factors, a committee composed of representatives from the Kanawha County school system and three of the colleges which later became participants in M-STEP had been working toward improved placement procedures for student teachers.

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*West Virginia Code, 18-2-6.

Beginning with this nucleus, five teacher education institutions, the Kanawha County public schools, and the State Department of Education joined hands to develop the M-STEP project in West Virginia--The Pilot Center for Student Teaching. The five cooperating teacher education institutions, dissimilar in many respects, were:

Marshall University – A state-supported university located in Huntington.

Concord College – A state-supported college located in a predominantly rural area at Athens, approximately 80 miles from Charleston.

Morris Harvey College – A private liberal arts college located in Charleston.

West Virginia Institute of Technology – A state-supported technical school with a teacher preparation program at the secondary level located in Montgomery.

West Virginia State College – Formerly an all Negro, state-supported college located at Institute, a suburb of Charleston.

STRUCTURE

A committee labeled "advisory," which was in fact a steering committee, was formed. It consisted of one representative from each of the five teacher education institutions, three from Kanawha County, and one from the State Department of Education. This committee developed policy within the framework of the original proposal. All policy decisions were referred to it.

Five planning subcommittees were chosen to do the detailed planning of various aspects of the Pilot Center program. Subcommittees were selected to plan the student teaching program in its totality, a seminar for student teachers, an inservice program for supervising teachers, evaluative instruments to be used with student teachers, and a means of financing a continuing program beyond the experimental phase.

Personnel chosen for these subcommittees were selected from all levels and segments of the cooperating agencies. Principals, supervising teachers, students, and personnel from all echelons of the county, college, and State Department were utilized on these subcommittees.

The Advisory Committee continued throughout the formal existence of the experimental program and now serves as the policy making body for the follow-up program--The Kanawha County Student Teaching Center.

Work of the Committees

The Advisory Council met periodically throughout the existence of the experimental phase of the Pilot Center for Student Teaching for the purpose of determining general policy. Positions of original members of the committee are listed to indicate the decision making level called for in the professional roles of the committee members.

Assistant Superintendents of Personnel, Secondary Schools, and Elementary Schools, Kanawha County;

Director of Student Teaching, Marshall University;

Director of Student Teaching, Concord College;

Director of Teacher Education, Morris Harvey College;

Director, Division of Teacher Education, West Virginia Institute of Technology;

Director of Teacher Education, West Virginia State College;

Director, Division of Teacher Preparation and Professional Standards, State Department of Education.

Broad policy was established, roles and responsibilities were delineated and defined, and calendars and other major operational procedures were set by this Advisory Committee. The major objectives of the Pilot Center were refined and stated by the committee.

Objectives of the Center

The Pilot Center is intended to serve as an organizational framework or operational vehicle through which to achieve the following:

a. To strengthen the leadership role of the State Department of Education in the improvement of student teaching programs.

b. To develop patterns of staff utilization which will facilitate the flow of innovative ideas in student teaching both from the theoretical setting of the college classroom and the public school classroom into the testing ground of the student teaching experience.

c. To build an attitude of acceptance on the part of public schools for a greater share of responsibility in planning and implementing student teaching programs.

d. To acquire more effective and efficient utilization of available physical and human resources of teacher education institutions, public schools, and the State Department of Education in providing student teaching experiences for a rapidly growing teacher education population.

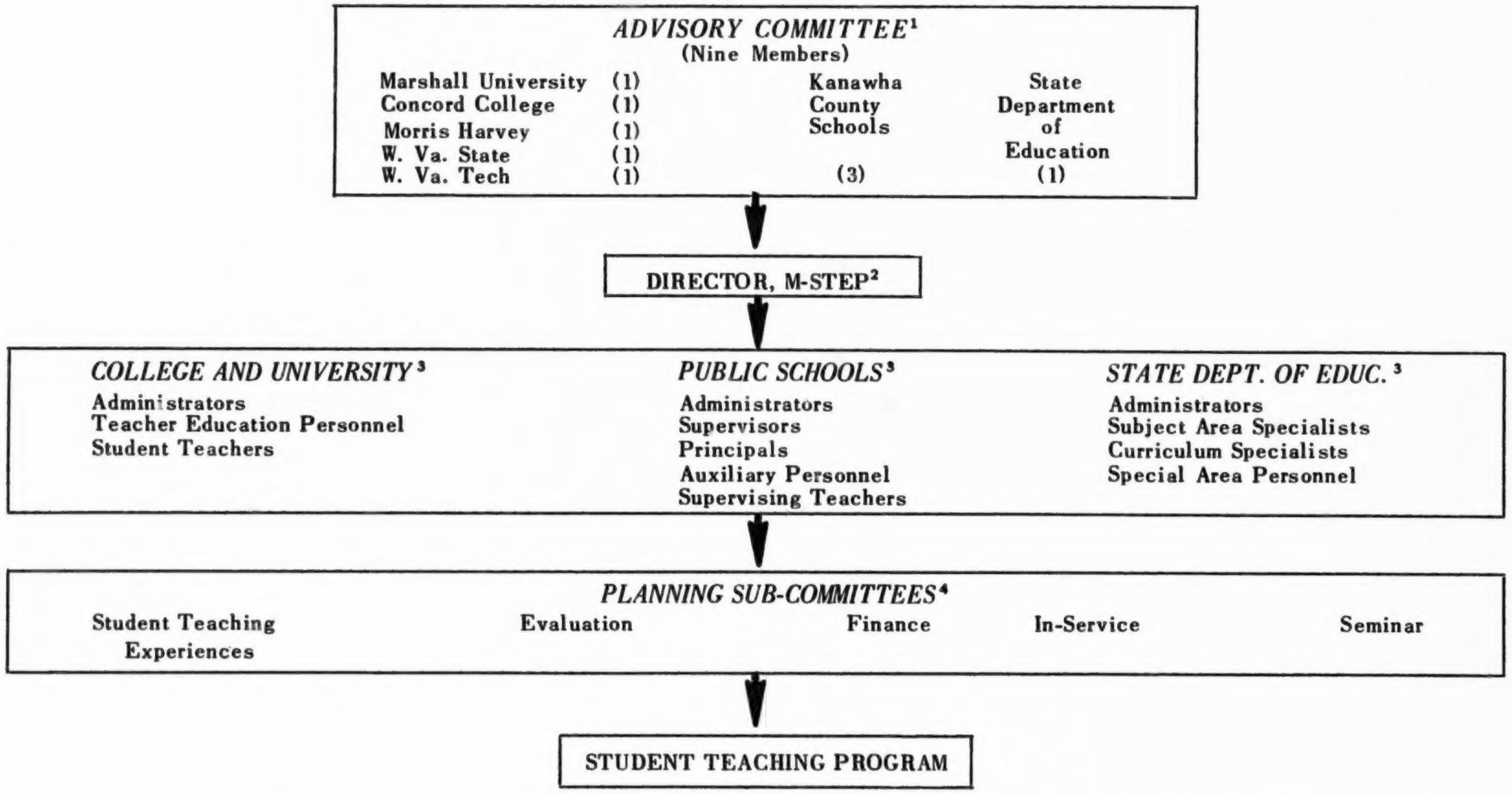
e. To develop an inservice program for supervising teachers designed to increase their effectiveness in directing the experiences of student teachers and to encourage their professional growth toward qualifying for licensure as Teacher Education Associates.

f. To develop a comprehensive student teaching program which would provide the student teacher with a broad range of experiences, and at the same time be flexible enough to meet the needs of student teachers from teacher education institutions of diverse nature and purpose.

The planning subcommittees were charged with the task of developing specific programs within the broad policy guidelines set by the Advisory Committee. The result of their work can be seen in the documents used in the Pilot Center. These materials contained statements setting forth rationale behind the planning as well as statements of objectives and operational procedures. Throughout the planning stages, considerable effort was maintained by the coordinator of the project to coordinate the work of the committees. Success of this effort can be found in the internal consistency of materials produced.

The coordinator of the project acted as group chairman, without vote, and as chief administrator of the Pilot Center. His major administrative task was coordination of the personnel and facilities of the cooperating agencies through the Pilot Center.

PILOT CENTER SUBCOMMITTEES



[1] The Advisory Committee serves as a planning and policy setting body within the framework of the M-STEP proposal.

[2] The Director serves as an administrator of the program and coordinator of the resources of the teacher education institutions, the public schools and the State Department.

[3] Personnel involved in planning the student teaching program.

[4] The sub-committees are composed of a broad representative sample of personnel from the three groups.

General Description of the Pilot Center

From the foregoing description of background conditions and statement of objectives, a general picture of the Pilot Center for Student Teaching begins to emerge. However, additional clarification may be helpful and some deliberate emphases may need to be pointed out.

The purpose of the Pilot Center was to develop an organizational or administrative framework within which the cooperating agencies could combine their resources, both human and physical in order to provide a better quality student teaching experience for students from each institution. Two purposes are included in the preceding statement. One--the development of an organizational or administrative framework--is process oriented; the other--better quality student teaching experience--is product oriented.

The primary emphasis of the Pilot Center was centered on process. While every effort was made to provide a higher quality student teaching experience for each student, it was a basic assumption of those involved in the Pilot Center that this better quality student teaching experience would be a result of the improved process. It was believed that limitations and restraints to quality student teaching programs would continue to inhibit the production of better quality until an organizational framework or pattern was discovered that would permit cooperating agencies to combine their resources in a more effective way. The Pilot Center provided this operational vehicle.

The Pilot Center provided the organizational process or vehicle for bringing to student seminars the best talent available in the cooperating agencies, for making these same people available to do intensive classroom supervision when needed, for consultant help to supervising teachers in specific need instances, and for channeling feedback from all sources into improved program.

It might be well to point out that the term "Center," as used in this project, does not refer to a particular building or set of buildings. Rather, the term refers to the organizational structure through which the project was conducted. For example, to say that placements were made through the Center is to say that the Center Director, working with institutional representatives and public school personnel, made placements.

Organizational Structure

An organizational chart depicting the position of the federally funded Pilot Center Project can be found in Attachment A. It indicates that the project was placed under the general supervision of the Director of the Division of Teacher Preparation and Professional Standards, which is a sub-division of the Bureau of Instruction and Curriculum. The chart also indicates the function of the Center in channeling resources of the cooperating agencies into the student teaching experience.

OPERATION

Project Calendar

The spring semester of the 1966-67 school year saw the beginning of the operational phase of the Pilot Center. The placement of student teachers was completed during February and early March. In a pattern which was followed in the succeeding two semesters of operation, the personnel involved in planning the program, including supervising teachers and the building principals, were brought together for a one-day orientation meeting. The students were given a similar one-day orientation to the program before beginning their student teaching experiences. The student teachers were in the schools for the full-day for a period of nine weeks.

Twenty-six students and as many supervising teachers were enrolled in the program during the initial semester, 9 elementary students and 17 secondary. A total of 12 schools were used, 3 elementary and 9 secondary.

During the second and third semesters of operation a dual calendar was maintained to accommodate students from Marshall University, where the teacher education program was geared to a longer student teaching period.

During the fall semester of the 1967-68 school year, 31 students, 8 elementary and 23 secondary were enrolled in the program. The spring semester of that school year saw 27 students in the program, 9 elementary and 18 secondary.

Student Seminars

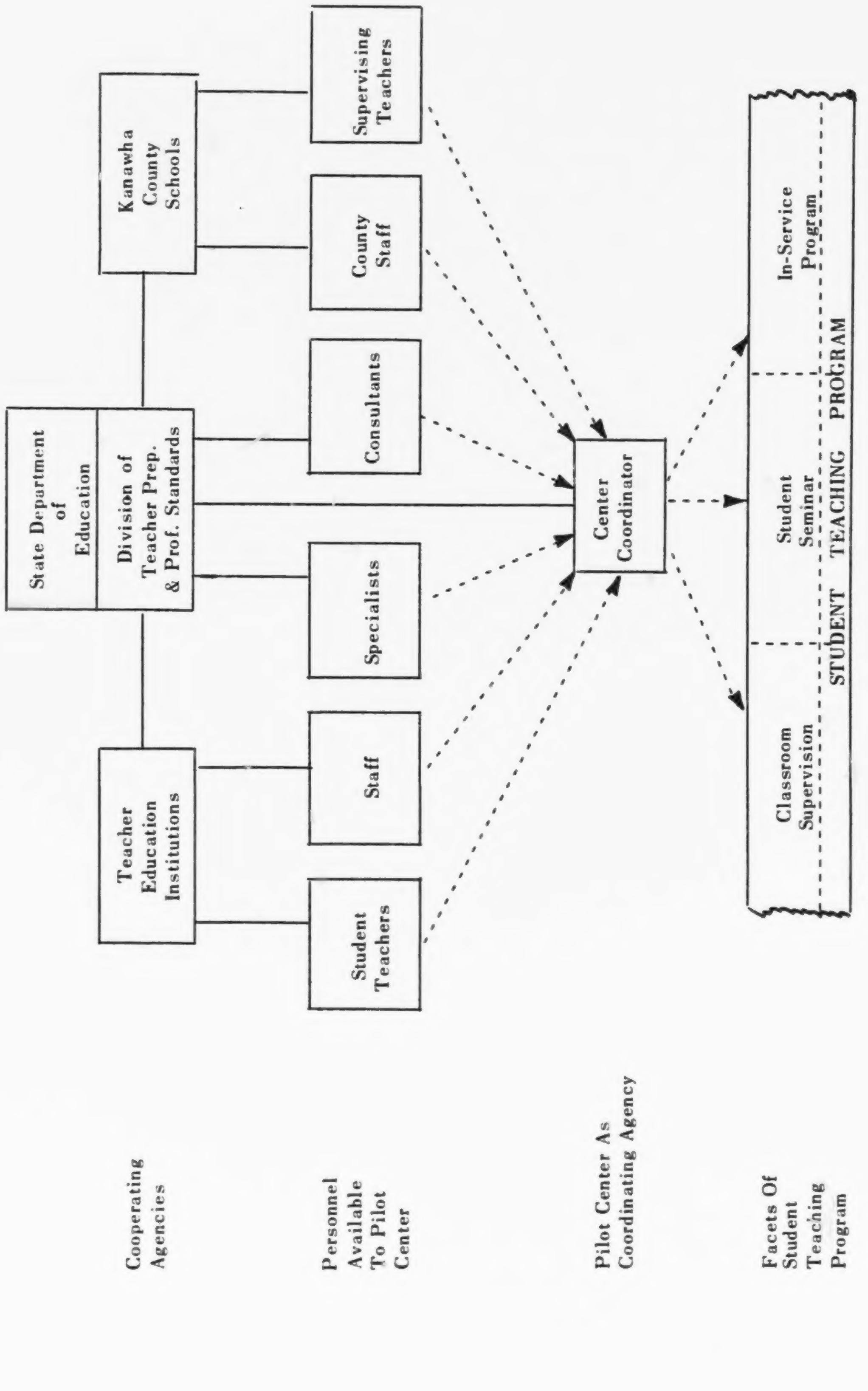
Weekly seminars, utilizing personnel from the cooperating agencies as well as consultants from other sources, were conducted with both secondary and elementary student teachers. The seminar program was designed, among other things, to provide a forum for the exchange of ideas among the students from the five participating institutions.

Inservice Programs for Teachers

An inservice program was conducted each semester for supervising teachers. This program was designed to enable supervising teachers to improve their proficiency in the area of supervising student teachers. During the last two semesters of operation, the inservice program for supervising teachers became a part of the newly established Kanawha County Inservice Program. In this program every teacher was expected to participate in 18 clock hours or 3 working days of inservice training for which he received pay. Two inservice courses were included in the Kanawha County Inservice Program catalog for the benefit of M-STEP supervising teachers. Those who were supervising an M-STEP student for the first time were enrolled in a 12 clock hour inservice program and those who had been in the program during a previous semester were enrolled 6 clock hours. A more complete description of the structure and objectives of the West Virginia inservice program will be included in a later chapter.

ATTACHMENT A

West Virginia M-STEP Pilot Center for Student Teaching



ATTACHMENT B

West Virginia M-STEP
Pilot Center for Student Teaching

Individual and Group Roles and Responsibilities

I. *INDIVIDUAL ROLES*

A. *Role of the Supervising Teacher*

The Standards for the Accreditation of Undergraduate Teacher Preparation Programs in West Virginia includes the following statements about the role of the supervising teacher:

> A supervising teacher is defined as a teacher who, in addition to his regular teaching assignment, is directly responsible for supervising the student teaching experiences of a student enrolled in a West Virginia institution of higher education accredited for teacher preparation.
>
> The supervising teacher shall retain full authority over all aspects of the school's program (e.g., instruction, discipline, and pupil evaluation), delegating responsibility to the student teacher on a temporary basis only. At such times the student teacher shall exercise the legal authority of a substitute teacher.
>
> The supervising teacher shall be in his classroom the optimum amount of time necessary to assure the most successful educational experience for the students and the student teacher. His absences from the classroom shall be carefully planned in accordance with needs of the pupils and the demonstrated competence of the student teacher.

The *Standards* include the following statements concerning characteristics of the supervising teacher:

> Eligibility to serve as a supervisor of student teachers shall be based on the judgment that the teacher has professional qualities which distinguish him as a person who is a superior teacher in his own right in that he:
>
> a. Is basically a learner, striving always to improve his ability to carry out his tasks.

b. Possesses a positive professional attitude and real respect and liking for teaching.

c. Will be a cooperative participant in the total school program and in the teacher education program.

d. Will be able to work effectively with other teachers, parents, student teachers, and college supervisors.

e. Will be able to assist the student teacher in development of his skills and self-evaluation, and will be able to make an objective evaluation of the progress of the student teacher in order to document the strengths and weaknesses of the student for the college supervisor.

The supervising teacher in the M-STEP program is also expected to:

1. Provide the student teacher with an example of high professional interest and ability.
2. Provide for orientation of the students to the school, the classroom, the pupils, and the community.
3. Induct the student teacher into teaching through a developmental program paced to meet his needs and abilities.
4. Help the student to develop effectiveness in teaching through joint planning.
5. Assist the student teacher in planning observation and participation activities in other subject matter areas, at other grade levels, and in related curricular and extra-curricular activities.
6. Accept the student teacher as a professional colleague.
7. Assist the student teacher in developing a pattern of personal and professional growth through constant self-appraisal.
8. Set the pattern for personal and professional improvement through participation in the inservice program for supervising teachers.

B. Role of the Student Teacher

The student teacher plays the central role in the student teaching process because it is for his benefit that the program exists. Consequently, it is essential that student teachers come to the student teaching experience with a clear understanding of the basic purpose of the experience and the specifics of the role he must play in it.

The primary purpose of the student teaching experience is to provide the student teacher with an opportunity to synthesize the educational theory he has studied and the actual experience of teaching. During the student teaching experience he has opportunity, under the guidance of mature educators, for continuous self-evaluation as a means of developing competence in the skills and attitudes essential to successful teaching.

The student teacher's role is a dual one in that he is both student and teacher. The following specific delineations of his responsibilities are designed to help him fill this difficult role.

The student teacher is expected to:

1. Bring to the student teaching experience an adequate knowledge of basic subject matter, human growth and development, and teaching techniques and procedures.
2. Display enthusiasm and interest in the student teaching experience.
3. Show initiative by attempting alternate teaching techniques in an effort to discover and develop a style of teaching suited to himself.
4. Demonstrate responsibility in accepting and completing assigned tasks.
5. Develop a pattern of personal and professional growth through constant self-appraisal and acceptance of constructive criticism.
6. Display a highly professional attitude in terms of such things as safeguarding confidential information about children, refraining from unprofessional remarks about colleagues, and violating basic rules of courtesy toward school administrators, teachers, pupils, and community.
7. Complete promptly all assignments required by the supervising teacher, the Center, and the college, both in and out of the classroom.
8. Plan all work and submit plans to the supervising teacher prior to the teaching of a class or as requested.

9. Comply with all school regulations to which regular teachers are expected to conform.
10. Demonstrate patterns of conduct that fall generally within the local standards of behavior.
11. Dress appropriately and in keeping with generally accepted standards of the community.

C. *Role of the Building Principal*

The *Standards* state specifically that the school as a center for observation and student teaching shall "have administrators . . . who encourage experimentation and innovation," and that each shall "have a principal . . . who will accept the responsibility of interpreting to the community the importance of the school's role in the improvement of public education."

The following list includes some rather specific elements of the principal's role.

The building principal is expected to:

1. Assist in selection of supervising teachers.
2. Provide an atmosphere conducive to a quality student teaching experience and the facilities and administrative arrangements necessary for such a program.
3. Assist in the orientation of the student teacher to the staff, facilities, and services of the school.
4. Protect the student teacher against exploitation.
5. Work closely with the Center staff, supervising teacher, student teacher, and other resource personnel in order to insure a strengthened instructional program.for the students.

II. *GROUP ROLES*

A. *Role of the Kanawha County Schools*

1. The facilities, personnel, and administrative arrangements necessary for an adequate student teaching program.
2. Inservice credit, through the Kanawha County Inservice Program, for teachers enrolled in the Pilot Center Inservice Program.

3. Cooperation with the Pilot Center staff in the selection of supervising teachers and participating schools and in the placement of student teachers.
4. Administrative leadership in involving all segments of the teaching profession in implementing the student teaching program.

B. Role of the Teacher Education Institutions: Concord College, Marshall University, Morris Harvey College, West Virginia Institute of Technology, West Virginia State College.

The teacher education institutions shall provide:

1. Students to be assigned by the Center who have demonstrated a readiness for student teaching through their performance in subject matter areas, professional courses, and personal behavior.
2. Professional staff time available to the Center to be utilized through the Seminar for student teachers, the Inservice Program for supervising teachers and consultative services to the center staff and the Advisory Committee.

C. Role of the West Virginia State Department of Education

The State Department, through the Pilot Center Director, shall provide:

1. Overall coordination and direction of the Pilot Center.
2. Leadership in developing a Center staff consisting of personnel from appropriate levels of the public schools, the cooperating teacher education institutions, and the State Department. This staff shall provide:
    a. A seminar experience for student teachers utilizing the resources of the cooperating groups.
    b. An inservice program for supervising teachers which utilizes the resources of the cooperating groups.
    c. Administrative, supervisory, and consultative services to supervising teachers, student teachers, and others involved in the program.

3. Cooperation with the teacher education institutions and public schools in the selection of supervising teachers and participating schools, and in the placement of student teachers.
4. Leadership and coordination in evaluation of the project.

Chapter III

Adventures with Laboratory Experiences in Teacher Education [*]

Part I. Practices and Problems

BECAUSE of the crucial nature of professional laboratory processes, the increasing numbers of students preparing to be teachers, and the general ferment currently at work in teacher education, student teaching is now being subjected to a more meticulous and hard-eyed analysis than ever before in its history. Problems that in the past were recognized but only sporadically attacked are now the subject of great concern and intense discussion. In recent years, conferences and workshops involving hundreds of teacher educators and student teachers have explored ways to make professional experience in teaching a more realistic and productive process.

Student Teaching in the 1960's Falls Short of Goals

Despite almost limitless potential and some unmistakable strengths, much of student teaching is disappointing to professionals. A 1967 publication by a national organization reported on this point.

> Today, student teaching is entangled in a mass of confusion, unmade decisions, and expediencies. It lacks a comprehensive definition and a clear-cut statement of goals and purposes. Despite the fact that student teaching must be a cooperative endeavor, in many cases the personnel in colleges and universities, public schools, professional organizations, and state departments of education who are most concerned and involved are not working closely enough together. Some colleges and universities develop programs and merely notify the schools of their plans. Others turn the whole enterprise over to the

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[*] By Director and Staff.

> public schools. In both instances, the key people involved in implementing the programs have no part in formulating them. While a few state departments of education are organized to solve problems in student teaching, most states still have no plans or structure.
>
> In many programs quality experiences occur quite by chance.[1]

The value of the student teaching experience, potentially at least, can hardly be overestimated. It may well be that student teaching is the single most important experience in teacher education in terms of influencing the classroom behavior of future teachers.[2]

> The new student teaching should be a creative, fulfilling experience and at the same time provide for critical analysis in order to make student teachers and their supervisors scholars of teaching. It should not be confined to a block of time at the end of the senior year. It should range from simple observation, to brief exposures with learners, to the development of skills in discrete elements of the teaching act (e.g., through microteaching), to analysis of personal skills and insights, all the way to the teaching of regular classes under the analytical eye of a professional mentor. It should be a study of teaching in various clinical situations. This new concept of student teaching demands new arrangements, revised administrative structures, and new systems of control. There needs to be a new order in student teaching.[3]

Issues and Needs

A concerted push toward a new order in student teaching was one of the earliest goals of the M-STEP states. To improve the whole spectrum of laboratory experiences in teacher education, M-STEP focused attention on some of the following issues and needs:

1. More and better school locations are needed for student teachers.

   As the number of student teachers soars year by year, the competition for good school settings in which to place them becomes more keen. Institutions are often forced to assign students to school systems where student supervision is inadequate and classroom experiences are narrow and not especially inspiring. Not only the quantity but also the quality of school settings must be improved. New kinds of facilities must be developed to provide student teaching experiences with a breadth and variety difficult to achieve in the typical situation.

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[1] National Commission on Teacher Education and Professional Standards, *A New Order in Student Teaching.* (Washington, D.C.: National Education Association, 1967), p. 2.

Editor's Comment: *A New Order in Student Teaching* resulted from deliberations of a Joint Committee representing the American Association of Colleges for Teacher Education, the American Association of School Administrators, the Association for Student Teaching, the Council of State School Officers, the Department of Classroom Teachers, NEA, the National Association of State Directors of Teacher Education and Certification, and the National Commission on Teacher Education and Professional Standards.

[2] Edmund Amidon and Elizabeth Hunter, "Direct Experience in Teacher Education: Innovation and Experimentation." *The Journal of Teacher Education,* Fall 1966.

[3] *op Cit,* p. 2

2. The quality of student supervision needs to be improved.

   It is generally agreed that the person who supervises a student's classroom experience has a tremendous influence on that student's future teaching behavior. For this reason, the selection of superior teachers for this responsibility is extremely important. Even outstanding teachers should never be given supervisory responsibility without special training.

3. More effective kinds of college supervision need to be developed.

   The college supervisor helps the student relate theory to practice; thus his role in a student teaching program is an important one. Because his time is limited and he often has long distances to travel to the student teaching stations, his relationship with the student and the supervising teacher is often superficial. Ways must be found to alleviate this situation.

4. Student teaching should be carried on throughout the teacher education program.

   There is growing pressure among teacher educators to integrate the laboratory experience more fully with the student's more formal learning effort. Such an integration can become the core of teacher education. "Direct experiences in the schools need not be isolated from foundation courses but can begin with the first course in education."[4] The work-study concept is being applied to teacher education in some institutions. Tutoring of pupils by teacher education students and part-time service as teacher aides are additional ways being used to place student teachers in earlier contact with children. Major emphasis on direct experiences should probably occur either as a concentrated internship or externship assignment, or as a process to be integrated with formal professional learning experiences on an individualized instructional basis.

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[4] **Edmund Amidon and Elizabeth Hunter, "Direct Experience in Teacher Education: Innovation and Experimentation."** ***The Journal of Teacher Education,*** **Fall 1966.**

5. Careful analysis of teaching behaviors needs to be made and utilized in the laboratory experiences sequence.

   The classroom experiences of the student teacher are often too casual and unplanned. A systematic analysis must be made of the teaching-learning process, of teacher-pupil interaction, as well as of the interaction between the student teacher and the supervising teacher. Even though studies of these processes have been made, their application in student teaching programs throughout the nation is limited.

6. Certification should depend on the applicant's demonstration of teaching skills and attitudes rather than merely on courses, credits, and scores on tests.

   Many top teacher educators share a growing conviction that many teaching skills and attitudes can be defined and broken down into step-by-step tasks and that mastery of these tasks is a requisite for success in teaching. They feel, therefore, that certification should be based in large part on demonstrated competence during the preservice training period.

7. Effective supervisory techniques need to be analyzed and developed.

   Little research has been done on the most effective techniques used by supervising teachers as they work with student teachers in the class room. Training young men and women to become effective teachers is a specialized kind of teaching and conceivably involves definable sets of knowledge and skills different from those used in teaching children.

   > . . . the supervising teacher must consistently demonstrate good teaching. Beyond this first requirement the supervising teacher must know what it is about his teaching that makes it good. He must be able to analyze it. This, it would seem, is a necessary step toward communicating to student teachers some of the ways in which generalizations about good teaching can be drawn and can later take shape in definite, specific acts of teaching.[5]

   The Flander's system of interaction analysis is widely known and along with several others, is considered very effective and not difficult to use. Nevertheless, recent studies indicate a relatively sparse utilization pattern of this and other effective aids in the analysis of teaching processes and patterns. One such survey[6] reports that in 1968, the

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[5] Samuel P. Wiggins, *The Valiant Supervising Teacher.* Keynote Address, Annual Conference of the Association for Student Teaching, 1959. (Mimeo.)

[6] James A. Johnson, *A National Survey of Student Teaching Programs*, OE Research Project 6-8182. (Baltimore: Multi-State Teacher Education Project, 1968).

Flander's technique was used significantly in only 10 percent of the student teaching programs of respondent colleges and universities of the nation. The same survey indicates the following quantitative uses of other important aids: microteaching, 16 percent; simulation, 39 percent; Taba's teaching strategies, 5 percent; Bloom's taxonomy of educational objectives material, 16 percent; sensitivity training, 14 percent.

8. Ways must be found to eliminate from student teaching the danger of non-thinking emulation of both the supervising teacher and others who have taught him.

   It is difficult for the student teacher to avoid copying the techniques and absorbing the teaching philosophy of his supervising teacher. Such emulation, however, can result in the perpetuation of unsatisfactory teaching practices and retard innovation and creative thinking on the part of the student. Even microteaching and simulation do not provide complete answers to this problem. Team supervision - whereby psychologists, specialists in teaching methodology, subject-matter specialists, and others work with the classroom teacher in a supervisory role - is one way of reducing student emulation of an individual teacher. Still other ways must be sought.

9. Wider use should be made of video processes and other new techniques.

   The values of microteaching via videotape recorder and of simulation techniques in laboratory experiences no longer need to be proven. Their effectiveness in changing the behavior and attitudes of student teachers has been shown in many experimental projects. However, the use of these new approaches needs to be expanded to more schools which offer teacher education programs. New and more creative ways must be found to use videotapes, films, and tape recorders.

10. Closer cooperation is needed between the many agencies concerned with laboratory processes in teacher education.

    In every state numerous institutions, agencies, and organizations - in addition to the state department of education - are concerned about student teaching and are working to improve it. Their efforts nonetheless, are often ineffectual because their work is isolated and uncoordinated. New patterns of cooperative leadership must evolve before improvements can be effected in the utilization of laboratory processes in teacher education.

The M-STEP states have sought and tested possible solutions to many of these problems. Their achievements are described in the following sections, and in other publications.

Part II. The Need for Cooperative Leadership

If student teaching is to change, if innovations in laboratory practices and procedures are to become a reality rather than a dream, every state must bring together its total range of professional resources and put them to work on the problem. Ten to a hundred or more agencies, each vitally interested in student teaching, each having little communication with the others, often exist within a state. A variety of professional agencies, each working separately, cannot possibly actualize the potential for leadership inherent in a state or region.

In each state, four basic kinds of organizations are concerned with teacher education: colleges and universities, state departments of education, elementary and secondary school systems, and various professional associations. Each of these has extensive resources in the form of competent professional personnel who, in the past, have tended to find their influence restricted to a single theater of operation. Each has extensive resources in the form of competent professional personnel, who, in the past, have tended to find their influence restricted to a single theater of operation. Each of these four groups can and must play an important role. Each faces serious limitations if it must work alone.

Advantages of Cooperative Effort

When groups work together, they bring to the planning processes the knowledge and points of view of persons from many teacher education agencies. Through cooperation they can make available to a wider audience of prospective teachers the professional expertise formerly limited to students in a single location. They can bring about a wider distribution, use, and evaluation of printed and audiovisual instruction materials. The "group mind" can be very effective.

Cooperative activities can give to the various agencies of a state-which sometimes feel isolated and powerless-the feeling that they have a real part to play in effecting change. Cooperation can build a greater interest in improvement, for interest usually grows out of actual involvement in a process.

The time has come, therefore, when these institutions and agencies must take on joint responsibility for the improvement of teacher education. Interagency communication, cooperation, and collaboration must be accelerated.

Some Plus Factors Affecting Cooperation

Fortunately, the four basic power structures in each state's teacher education program are not mutually antagonistic. Their interests coincide at many points, and each can make unique contributions to the attainment of mutually acceptable goals. Also, their staffs are eager to participate in group efforts to bring about progress. Unquestionably, these factors smooth the road to productive cooperation.

How Cooperation Can Be Developed

The state education agency is the only body in a position to assume responsibility for coordinating teacher education activities within a state. M-STEP planners felt that the SEA should take the initiative and exert leadership in building cooperation. The role of the state department of education should be one of partnership with the other agencies whose interests lie in teacher education. Once a structure for inter-agency cooperation has been established, creative professional minds (with continuous reinforcement and services) can be depended upon to function together in virile and productive ways.

This is essentially the same role the state education agency plays in order to maintain quality in elementary and secondary education. Through the years, state department activities designed to improve these levels of education have been intensive and visible. In most states, however, the same attention has not been given to improving the quality of teacher education.

How Cooperative Leadership Has Been Fostered in M-STEP States

Aware of the urgent need for cooperative action, M-STEP planners made greater interagency collaboration one of the project's major goals:

> In the original project proposal the states gave attention to plans involving state departments of education, colleges and universities, local education agencies, and professional organizations. Examples at random from two states express this point. The state of Michigan planned to "assume leadership in eliciting regional agreements regarding standards for student teaching programs . . . by colleges and local education agencies in selected centers," and Washington state called for "state leadership of local education agencies and teacher education institutions"[7] in developing new programs for preparing teachers and for inducting beginning teachers into career service.

M-STEP has been successful in moving toward this goal. The project has either developed or worked with several kinds of state committees

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[7] Multi-State Teacher Education Project Proposal, Section A-13, February 1966.

(described in detail in another chapter[8]). Most of these were new committees, organized as a result of M-STEP efforts. In two states existing committees, which were serving as planning and advisory groups for teacher education, were used to forward the M-STEP purposes. Membership in these state committees has differed from state to state but usually includes personnel from teacher education institutions, state departments of education, and the public schools.

Most M-STEP states have also organized what might be called "close" or local committees in addition to state committees. Sometimes these local groups serve as steering committees. One purpose of such groups is to build and maintain close working relationships between local M-STEP programs and state M-STEP planners. In most instances, these local committees were represented on the more remote state planning councils.

Following are some examples of M-STEP arrangements designed to develop greater cooperation for the improvement of student teaching:

Maryland's Kemp Mill teacher education center benefited from the varied points of view represented in a steering committee. The committee was composed of representatives of the Montgomery County school system, the College of Education at the University of Maryland, and the Maryland State Department of Education. Its function was to bring to a focal point, through group discussion, the ideas and opinions brought forward by each of the cooperating agencies involved in the Kemp Mill Center.

The steering committee dedicated its thinking and activities to the following aspects of the Kemp Mill program: selection, use, and evaluation of laboratory experiences; development of new instructional media for teacher education; development of inservice programs for the Kemp Mill staff; and dissemination of the committee's findings.

Titles and agencies represented on this committee were:

M-STEP State Project Coordinator, Maryland State Department of Education
Assistant State Superintendent of Schools in Certification and Accreditation, Maryland State Department of Education
Coordinator of Laboratory Experiences, University of Maryland
Director of Area 8, Montgomery County Schools
Coordinator, Kemp Mill Teacher Education Center
Principal, Kemp Mill Elementary School
Teacher, Kemp Mill Elementary School
Associate Dean, College of Education, University of Maryland
Director of Staff Development, Montgomery County Schools

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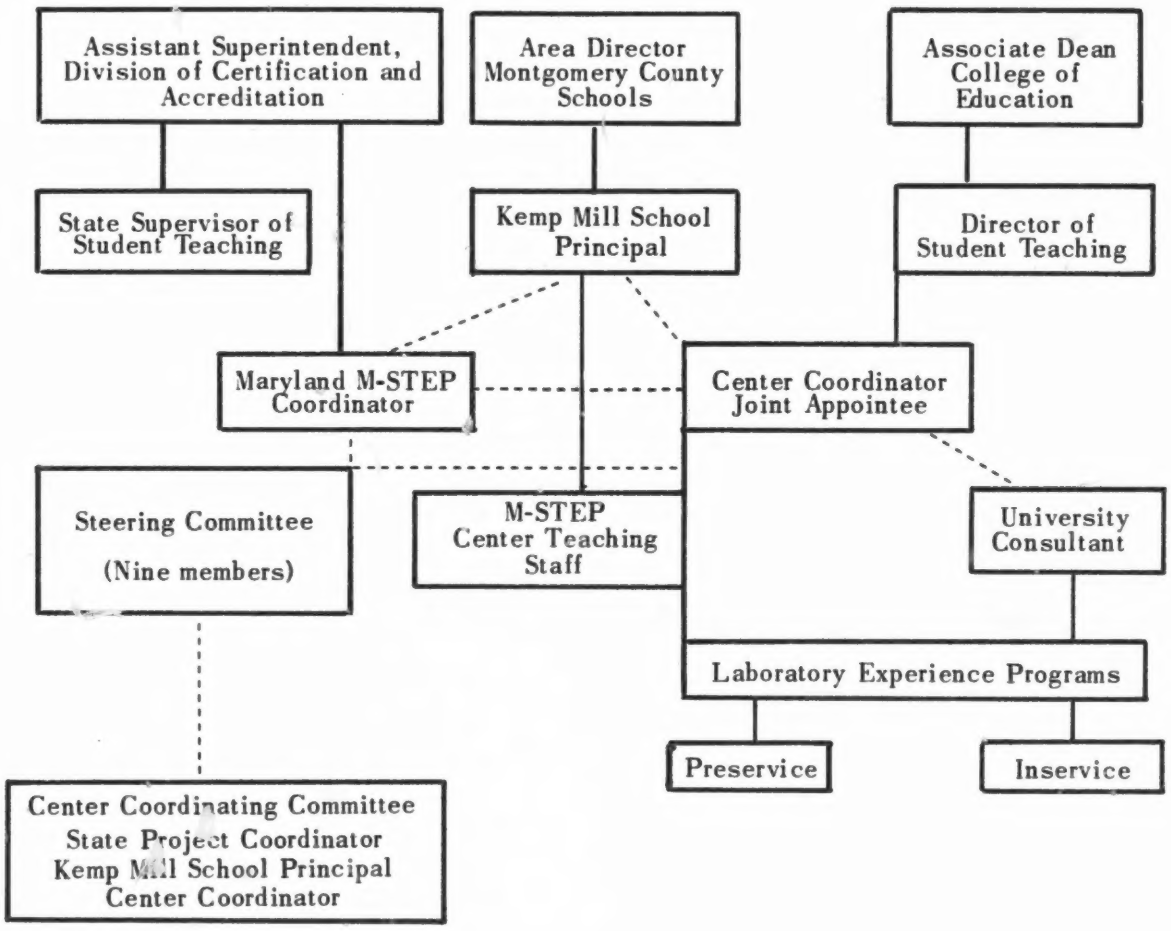
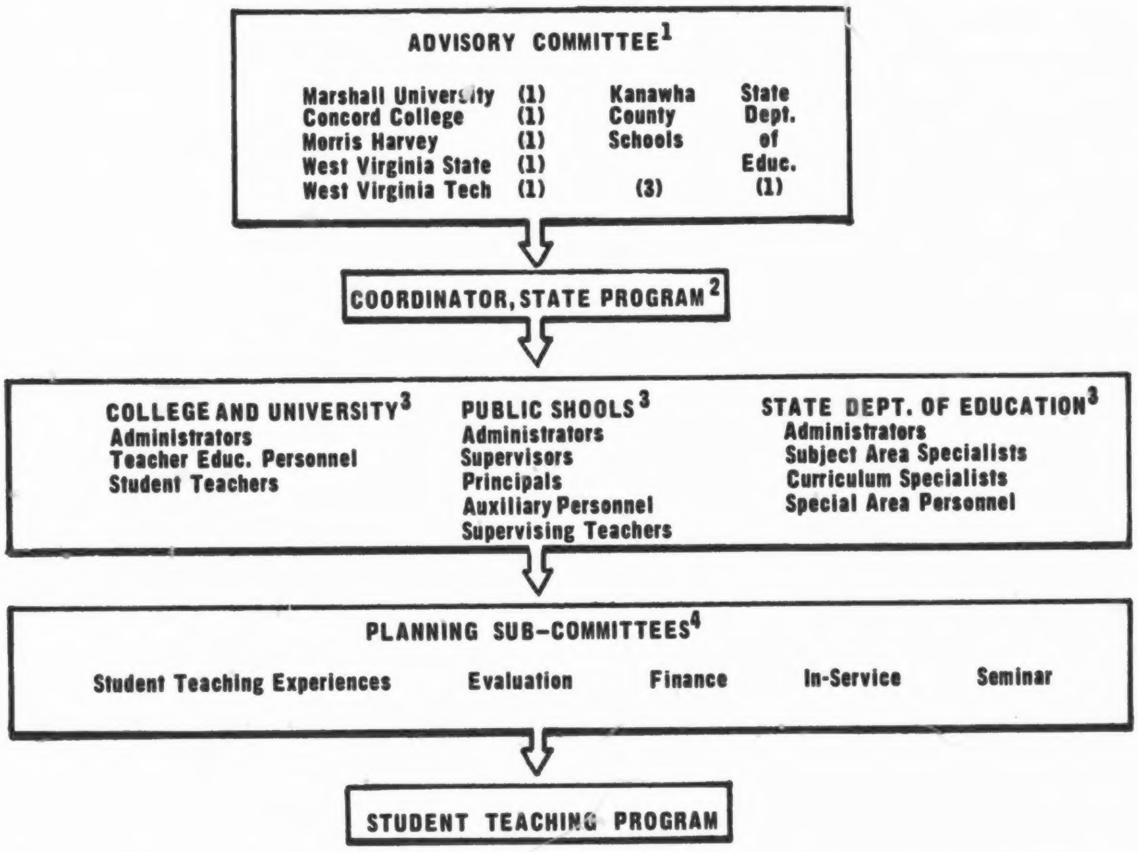
[8] *State Organizations for Improving Teacher Education*, Chapter II.

MARYLAND M-STEP ORGANIZATION CHART


Assistant Superintendent, Division of Certification and Accreditation
Area Director Montgomery County Schools
Associate Dean College of Education
State Supervisor of Student Teaching
Kemp Mill School Principal
Director of Student Teaching
Maryland M-STEP Coordinator
Center Coordinator Joint Appointee
Steering Committee
(Nine members)
M-STEP Center Teaching Staff
University Consultant
Laboratory Experience Programs
Preservice
Inservice
Center Coordinating Committee
State Project Coordinator
Kemp Mill School Principal
Center Coordinator

An advisory committee and five subcommittees were set up to plan and help administer the West Virginia Pilot Center for Student Teaching. A representative of each of the five cooperating colleges, three representatives of the Kanawha County Schools, and one of the State Department of Education made up the membership of the Advisory Committee. This committee and the planning subcommittees included 40 individuals representing all the participating agencies and institutions. Approximately 100 other members of the West Virginia professional staff were affiliated with the project. This group included more than 60 supervising teachers and representatives of administration and facilities of the colleges, the Kanawha County schools, and the State Department of Education.

WEST VIRGINIA
PILOT CENTER FOR STUDENT TEACHING
CHART OF COMMITTEE STRUCTURE



[1] The Advisory Committee serves as a planning and policy setting body within the framework of the M-STEP proposal.

[2] The Coordinator serves as an administrator of the program and coordinator of the resources of the teacher education institutions, the public schools and the State Department.

[3] Personnel involved in planning the student teaching program.

[4] The sub-committees are composed of a broad representative sample of personnel from the three groups.

In a series of meetings, the Advisory Committee established the broad policies under which the Center would operate and appointed subcommittees to work out details of the student teaching program.

The subcommittees worked on the following problem areas: inservice education, seminars, student teaching experience, evaluation, and finance. Their efforts resulted in a jointly planned student teaching program that was acceptable to the five teacher education institutions involved, to the Kanawha County Public Schools, and to the State Department of Education.

The committee structure provided opportunities for persons from agencies involved to do creative planning, to share ideas, and to arrive at a meeting of minds. These resources were vital aids to the West Virginia Student Teaching Center in its emergence as an effective force in teacher education.

From the beginning a major concern of the Michigan M-STEP has been the development of cooperative structures for improved administration of the state's student teaching program. Its purpose was to provide a setting in which cooperation could take place. With this in mind, the state was divided into six regions, each with its own carefully selected regional council. A total of 106 professionals in teacher education serve on the councils. Sixty-one of these are teachers or administrators in local elementary and secondary schools; others are representatives of teacher education institutions, of county or intermediate school districts, and of the State Department of Education.

Each council developed its own functions and decided on its own projects. Some of the councils appointed subcommittees to study specific areas of student teaching. A major goal of all the councils was to provide a means whereby interested parties could exchange ideas and views relating to teacher education and/or laboratory experiences for students.

Michigan M-STEP has been completely dedicated to the idea that the improvement of laboratory experiences depends on the cooperative effort of all agencies. Members of one regional council stated that they " . . . firmly believe that the dialogue between the public school people and the colleges and universities has begun. They see this as the most important result of the meetings, thus far. With this mutual respect established they are confident that many of [their] recommendations can be implemented."[9]

The Final Report of Michigan M-STEP states:

> The impact of the M-STEP program on teacher education in the state has been one of bringing representatives from the schools and teacher preparation institutions together to communicate freely about their roles in teacher education. Considerable information has been exchanged concerning philosophy, autonomy, and policy of programs. A definite spirit of partnership in teacher education prevails among the Regional councils . . . . M-STEP has provided for the first time a vehicle with which to bring representatives from school districts and teacher preparation institutions together in a formal state-sponsored organization for the improvement of student teaching and teacher education programs. Progress to date indicates that Michigan is very much moving in the direction of cooperative student teaching programs. No longer is inter-institutional cooperation discussed as a desired goal; it has become a reality among Michigan teacher education institutions. Efforts

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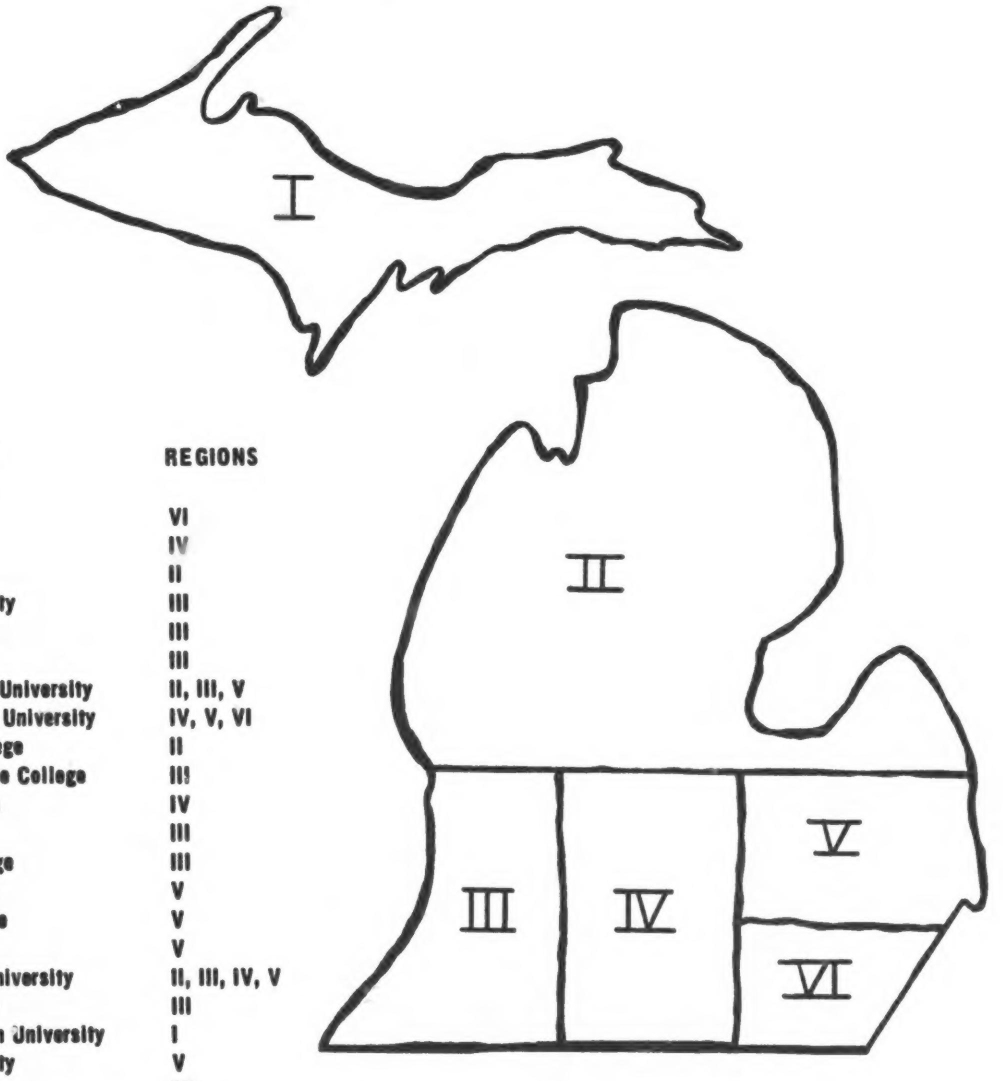
[9] Michigan M-STEP, *Regional Council Progress Report*, June 1968. p. 3. (Mimeo.)

in this direction will continue to succeed because of the cooperative climate that exists within the state, a climate in which M-STEP has contributed significantly to the new emerging role of the teacher preparation institution, the school district, and the State Department of Education in the training of teachers.[10]

MICHIGAN M-STEP
Institutional Regional Involvement



INSTITUTIONS	REGIONS
Adrian College	VI
Albion College	IV
Alma College	II
Andrews University	III
Aquinas College	III
Calvin College	III
Central Michigan University	II, III, V
Eastern Michigan University	IV, V, VI
Ferris State College	II
Grand Valley State College	III
Hillsdale College	IV
Hope College	III
Kalamazoo College	III
Madonna College	V
Marygrove College	V
Mercy College	V
Michigan State University	II, III, IV, V
Nazareth College	III
Northern Michigan University	I
Oakland University	V
Olivet College	IV
Siena Heights College	VI
Spring Arbor College	IV
University of Detroit	V
University of Michigan	IV, V, VI
Wayne State University	V, VI
Western Michigan University	III, IV, V

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[10] *Final Report, Michigan Multi-State Teacher Education Project.* (Lansing: Michigan Department of Education, Bureau of Higher Education, July 29, 1968).

Florida M-STEP worked with the Teacher Education Advisory Council, a group previously established by the Florida legislature, and with several ad hoc committees. Council membership consists of one member from each teacher education institution in the state; a member from the liberal arts college from each teacher education institution having a separate college of arts and sciences; four members from the Florida State Department of Education; the president and executive secretary of the Florida Education Association; the chairman of the Teacher Education and Professional Standards Committee of the Florida Education Association; one junior college president; one county superintendent; one supervisor; two senior high principals; two junior high principals; two elementary principals; three senior high teachers; three junior high teachers; three elementary teachers; and six lay persons.

Several *ad hoc* committees were created to perform specific M-STEP tasks. One developed a bulletin on teacher aides; another set up a series of conferences on the planning and analysis of classroom instruction.

Many M-STEP activities in Florida were conducted by task force groups working in the areas of professional laboratory experience, graduate programs for teachers, teacher aides, educational media, and others. The M-STEP publication *Guidelines for Student Teaching in Florida* was a cooperative achievement of the State Advisory Council's subcommittee on laboratory experiences, whose membership included representatives of the Association for Student Teaching.

A series of four regional M-STEP conferences was held on "School-College Cooperation in Professional Laboratory Experience." The conferences were sponsored jointly by the Florida State Department of Education and the Florida Unit, Association for Student Teaching.

In Utah, interagency cooperation centered around the state's six colleges of teacher education. Representatives of these institutions, the schools, and the department of education served on the M-STEP State Advisory Board. The colleges maintained close working relationships as they planned and produced teacher education instructional materials for M-STEP.

Another form of interagency cooperation was developed by the University of Utah, which made a concentrated effort to build public school involvement into the planning of its student teaching program. To accomplish this, it provided opportunities for teachers and administrators of public schools to air their views on teacher education and to contribute ideas for its improvement. Public school personnel now serve on the advisory committee of the university's student teaching centers. They are encouraged to make specific recommendations for changes in the student teaching program and submit them to the school-college relations committee and/or curriculum committee, all the way up to the university president and board if they so desire. The heart of this cooperative process is the School-College Curriculum Interchange Center.

The university's Sub-Committee on the Management of Student Teaching has the following membership: the university's director of student teacher placement; two university faculty members who supervise student teaching; the directors of teacher personnel from each school district; a teacher from each school district; and a representative of the Utah State Department of Education.

For a detailed description of the University of Utah's structure for school-college cooperation, see the *Proceedings of the M-STEP Planning Conference*, report of a meeting held at Treasure Mountain Inn, Utah, in July 1966.

The Washington State portion of the Multi-State Teacher Education Project is designed to foster and explore better ways of relating preservice teacher education with inservice teacher education. Following logically from the patterns of teacher preparation and certification developed in the State of Washington over the past several years,[11] the M-STEP Project is bringing together the laboratory experiences typically provided in the senior year of college with the inservice training experiences given teachers during their first two years of teaching.

The first phase of the M-STEP Project (Washington) involved three sets of cooperative arrangements:

Set #1. The Bellevue Public Schools and Washington State University

Set #2. The Edmonds Public Schools and Western Washington State College

Set #3. The Seattle Public Schools and the University of Washington

To plan and coordinate the activities of the Project, a coordinating committee for each of the three school-university sets was organized. Each coordinating committee consisted of three people from the university or college, and three people from the school district. Presidents or Deans of colleges were expected to appoint the college or university representatives; superintendents, the district representatives. Coordinating Committees report to their appointing authorities keeping them appraised of the progress and activities of the Project. The M-STEP Project Director for Washington serves as consultant and research investigator during the course of the Project, meeting regularly with Coordinating Committees and keeping each informed of his activities. The Coordinating Committees from the university-school district sets meet together as a single group periodically to share information from one part of the Project to another.

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[11] Washington State pioneered in the development of a five-year program of teacher certification: a provisional teaching certificate is issued upon graduation from an approved teacher education program, and a standard certificate is issued after two years of successful teaching experience and the completion of a fifth year of college.

The Teacher Education Standards Revision Committee, which has long served as an advisory group to the State Board of Education and the State Superintendent of Public Instruction for the State of Washington, served as the Project Advisory Committee. The design and the administration of the M-STEP Project for Washington has been under the surveillance of this committee.[12]

In South Carolina, M-STEP was an integral part of the Office of Teacher Education and Certification, and related directly to the function and activities of the office. The creation of M-STEP made it possible for the state department to broaden the scope of its teacher education activities.

External to the State Department of Education organization were the M-STEP Steering and Advisory Committees and the South Carolina Association for Student Teaching. These groups gave valuable advice to the M-STEP project in producing a *Handbook for Student Teaching* and a series of ten videotapes dealing with significant aspects of student teaching.

Basic to the success of M-STEP in South Carolina were the committees, both existing and newly formed, which served in an advisory and working capacity to the project.

The first of these groups was the Teacher Education Council of South Carolina. Its' membership constituted professional educators whose assignment was to consider problems concerning teacher education and certification and to make recommendations to the Office of Teacher Education and Certification to be considered by the State Board of Education concerning both present and proposed programs of teacher education. This group served in an advisory capacity.

The second group was the State M-STEP Steering Committee, organized early in the project to help decide objectives, priorities, and procedures. Out of this five-member group and other education personnel from across the state came the sub-committee charged with the responsibility for the development of a *Handbook for Student Teaching.*

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[12] A list of the membership of the Teacher Education Standards Revision Committee can be found in Chapter II, "State Organizations for Teacher Education."

As plans for developing the series of videotapes proceeded, the need for additional direction from the steering committee and other educational and technical sources became evident. The necessity for careful and continuous planning by project staff members in the production of videotapes resulted in the need for greater involvement and cooperation by many persons from colleges, public schools, professional organizations, and educational television. As a result, the original Steering Committee of five members from institutions of higher education was expanded to include representatives from public schools and educational television. The new Advisory Committee consisted of thirteen members, exclusive of the project staff. It was felt that such a committee, representing administration, curriculum, methods, educational psychology, instruction, elementary and secondary education, several teaching areas, student teaching, and educational television would provide the breadth and depth needed to guide the project in the production of good videotapes.

It is apparent that M-STEP states have taken various approaches in their efforts to organize the professional talents of many agencies. What they have done - regardless of their approach - has produced in each state a climate of cooperation. This climate, the M-STEP states agree, will continue to exist after M-STEP comes to a close. The various agencies involved have shown a desire to cooperate for the improvement of teacher education. They know full well that only by working together - sharing problems, facilities, and engaging in creative thinking - can appropriate and effective forms of innovation take place. If M-STEP had done nothing more than develop state and regional climates of this type, it would have performed a great service to teacher education.

Part III. New Patterns in Laboratory Experiences.

From the beginning of the project, it has been a basic assumption of M-STEP planners that innovation and experimentation in the laboratory aspects of teacher education are urgently needed in this country. The planners felt strongly that completely new organization approaches to the laboratory experiences process must be created, tried, and evaluated. It was obvious to them that changes - even revolutionary inventions - were needed if laboratory experiences are to meet the needs of men and women preparing to teach.

Critics contend that student teachers are rarely exposed to team teaching, to the use of education's new technology, to planning together, or to working in innovative situations. They say that the student teaching experience does not prepare students for the specialized teaching roles emerging in today's schools, such as instructional specialists, professional teachers, assistant teachers, and teacher aides; it does not provide training for individual roles on differentiated staffs.

Aware of weaknesses in the typical laboratory experience, the M-STEP organization moved immediately into planning and experimentation. Its goal was twofold: improvement of current patterns of student teaching, and consideration of revolutionary changes in the broader laboratory or direct experiences concept.

Before examining the achievement of the M-STEP states in developing new approaches, let's look at student teaching as it exists today at several levels of proficiency.

Existing Patterns Are Inadequate

A. Characteristics of Student Teaching - Standard Model

The student is placed at random in an available school classroom for a period of one semester or less. He may be assigned to a school close to the campus or to one entailing a half day's travel away from the campus. His supervising teacher may be a strong and competent professional person, but one who rarely possesses a background in teacher education.

The student teacher is usually placed in this student teaching situation during the first semester of his senior year, after a minimum of direct preparatory experience. A few classroom observations, and the usual number of hours of required professional courses are generally considered sufficient preparation for student teaching. With this meagre indoctrination, the future teacher enters what is often called the most productive and valuable professional course in the teacher education program.

The student teacher is probably observed a few times by the college supervisor of student teaching. The supervisor's visit is usually followed by a critique session involving the student teacher, the supervising teacher, and the college supervisor. There is usually a frank, friendly, and mutually beneficial discussion between the college supervisor and the supervising teacher about the student's accomplishments and weaknesses, plus the development of plans for remedial action. The two compare notes on improvements to be expected by the time of the next visit, and each goes his respective way.

What's Wrong With This Picture

Quite obviously, Student Teaching (Standard Model) could be improved at several points. To touch just one: it suffers from a shortage of good locations for student teachers. Each of ten, forty, and sometimes more colleges and universities in a state which offer teacher education programs must find student teaching stations for 25, 90, or 1,000 seniors each year. Even the most optimistic among us realize that in this competitive process we often settle for less than the best. Typically, a wide range exists between the best and the worst learning situations into which student teachers are placed. The resultant loss in learning opportunity for at least some teachers cannot be lightly dismissed. The effects are long-range and begin to be felt as soon as inadequately prepared teachers take over classrooms of their own.

Few of the colleges and schools portrayed in this program offer in-service courses and workshops for supervising teachers. They are provided little opportunity for professional growth through attendance at state and national meetings, and little, if any, released time is available for conferences with student teachers and staff, special preparation, and planning sessions. Because of the great travel distances, organized professional assistance from the college or university is usually inadequate. No secretarial-clerical help is available to the teachers.

B. Student Teaching - Improved Model

Student teaching stations are selected in the same manner as in the "Standard Model," but with greater discrimination. An attempt is made to choose teaching stations in geographical clusters, so that college supervisors will spend less time in travel and thus can devote more time to student teachers each day. The cluster arrangement also

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allows teachers to take part in group seminars under the direction of the college supervisor and/or supervising principals. Other resource personnel are available to student-teacher groups.

The prospective teacher is prepared for the laboratory experience by working with children as a teacher aide or in a similar capacity. The student teacher thus knows something of child behavior from direct experience, is classroom oriented, and has begun to become oriented to teaching. At least some professional course effort on campus has been devoted to seminar or practicum work related to these limited experiences which were offered prior to student teaching.

College supervision is of high quality, and performance of the supervising teacher- both as teacher and as professional guide to the student teacher- is superior. These supervising teachers sometimes hold certificates indicating this special preparation.

The Improved Version is Inadequate

Although a great improvement over the standard or usual situation, this version is still less than ideal. It treats student teaching as a thing apart, although the most forward-looking thinking today has discarded even the term "student teaching" and would make direct experience part of the very warp and woof of the teacher preparation program. These creative thinkers see direct experience as a way of helping students put theory immediately into practice and get immediate feedback on their success or failure at performing every teaching task.

Even this new and improved version is still basically the same old process with inherent innefficiences.

New Directions

If educators are sincere in their indictment of current student teaching practices, they must be prepared to open their minds to drastic new approaches. New designs are being tested, and still more radical proposals are being advanced for experimental and inventive arrangements. Some bear little resemblance to student teaching as we know it. Before a large scale cooperative effort can prepare teachers for the dynamically changing world of education that lies ahead, new and revolutionary ideas must and will be tried. Following are some approaches being considered; some of these are already in operation. The student teaching center, though not a new idea, is becoming more prevalent, and many of the approaches used in these centers are new and experimental.

A. The Clinical Concept

This approach provides student teachers with more opportunities to work with children in classroom situations, either through undergraduate, graduate, or inservice internships. Of still greater importance is the fact that teacher education programs are individualized; they are based on diagnosis of the prospective teacher's strengths and their utilization, and upon an assessment of his weakness and provision for their correction.

B. The Intensified Clinical Core Program

In this plan, student teaching is no longer merely an adjunct to teacher preparation; it is the operational center from which the program grows. A Clinical Core Program might be described as follows:

1. A clear-cut definition of the specific teaching skills, techniques, and understandings which comprise effective teaching is agreed upon.
2. These components of good teaching are organized into a set of priorities and sequences.
3. The student's progress through his four-year college program depends on his demonstrated success in acquiring these skills, techniques, and understandings rather than on his accumulation of semester hour credits. The program is adjusted to strengths and weaknesses of students.
4. Opportunities for acquiring these components of effective teaching are extended over a longer period of time than is now devoted to laboratory experiences.
5. The student's laboratory experiences are integrated with reorganized course work, seminars, and group discussion. All avenues of professional development are supplemented and enriched by the latest visual media and processes, including self-evaluation via videotape. In the future, systems for information retrieval will be used as information resource media and as aids for research.

C. The Student Teaching Center

The teacher education center is a cooperative enterprise between one college or university (or several colleges and universities) and a public school system in which an attendance unit gears itself to the task of providing laboratory experiences for students in teacher education. The M-STEP concept also includes cooperation with and by the state department of education. The center differs in several ways from a typical attendance unit in a public school system. Among these differences we might cite the following.

The center possesses a dual role. In addition to educating children, it takes on the task of preparing teachers. The center is staffed with classroom teachers who possess strong knowledge of and capabilities in teacher preparation, in addition to being highly capable performers in classroom instruction. This is to say, the staff of the teacher education center is capable of playing a dual role including teacher preparation and serving as competent specialists educating children.

The teacher education center provides numerous growth opportunities for its classroom teaching staff. These include attendance at outstanding state, regional, and national conferences on teacher education, and inservice education to broaden the staff's professional capacities in teacher education. Members of the center staff, and individuals representing the staff, become known as professionals in teacher education, as they genuinely are, at the state and national levels. Representatives of the center participate in programs on a state and national scale, where they make unique contributions to professional knowledge and practice, and in turn, serve as recipients of professional insights from the mainstream of state, regional, and national ferment. From sources such as these it is inevitable that a high rate of professional growth and awareness must follow.

The center provides guided teaching opportunities for a large number of students concentrated in one place, as contrasted to the usual procedure of placing only a small group of students in a single building. In the center it is not unusual to find that from two-thirds to three-fourths of the teaching staff are working directly with student teachers. In fact, the total staff of the center stands ready to provide professional growth opportunities for its student teaching clientele.

The student teacher is not assigned directly to full-time work with a single classroom teacher. He may be assigned to a single teacher for considerable periods of time, but is given additional assignments with other teachers on the staff as individual growth needs become clear.

The center is organized to provide professional growth facilities that are well beyond those found in the typical school. These include a professional library and access to audiotaping and videotaping equipment, opportunities for microteaching exercises, simulation processes, and the like. Field seminars and frequent conferences of student and staff are readily possible in the center situation.

Supervision of student teaching is much more continuous than in non-center situations. A center coordinator, desirably full time, works with student teachers and the center staff. Preferably, the center coordinator will represent both the college or university and the local schools. No direct supervision by the college is necessary.

As the teacher education center develops toward its ultimate pattern, it conceivably could be established as a teacher education institution possessing autonomous characteristics serving the teacher education program. When this happens, many changes can be introduced including microcourses on specific topics reinforced by short direct experience assignments. Among other things, this development may replace the typical continuous block of time allocated to student teaching.[13]

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[13] A portal school concept has been submitted to a federal agency in a model plan prepared by staff at Florida State University at Tallahassee. The following passage is reproduced from a university proposal to the U.S. Office of Education.

PORTAL SCHOOLS

Each of the cooperating school systems will be asked to designate one or more elementary school units as "portal schools." This term is appropriately descriptive in that such schools will mark the transition between the preservice and the inservice phases of the model program and will be the gateway for entry of teachers into the teaching profession.

Although the nature of the portal schools will vary among school systems, they will have some characteristics in common. First, principals and other status leaders in these schools will be favorably inclined toward innovation. Second, they will use some of the "new" curricula that have been developed in such areas as mathematics, science, or social studies. Third, they will be employing organizational arrangements that include the utilization of para-professionals and teacher aides, some differentiation of roles among teachers, and a modular schedule. Fourth, these schools will make considerable use of new teaching media. In a general sense they will express, by becoming a portal school, a willingness and an interest to participate in a variety of ways in the full sweep of the model teacher education program, including both the preservice and inservice phases.

Functions which portal schools will serve in the total model program can now be visualized:

1. They will insure an easy transition for trainees from a shielded position in the university preservice phase to a fully responsible teaching position in the schools in the inservice phase.
2. They will make it possible for the inservice phase to operate in school situations totally in harmony with the goals of the model program.
3. They will be useful in providing feedback to determine further needed changes in both the inservice and preservice phases of the model program.

In turn, they will serve cooperating school systems in specific ways:

1. They will provide a supply of teachers, through the staff associate role and the intern group itself, that can be used as leaders in other schools within a school system.
2. They will constitute demonstration centers within school systems for the promotion of change.

The On-Campus Program

As stated earlier, the inservice phase will include three summers on a university campus in addition to two years of teaching in an elementary school. The latter field work

LABORATORY EXPERIENCES

Ways in Which M-STEP States Have Restructured Student Teaching

West Virginia's Pilot Center

In West Virginia the M-STEP Pilot Center for Student Teaching was organized in the Kanawha County school system. The organization for this center was explained in Section Two of this chapter. Five West Virginia institutions of higher education which operate teacher education programs engaged in a genuine cooperative enterprise with the County and the West Virginia State Department of Education in placing student teachers in several of the county's elementary and secondary schools. The elaborate committee system which was organized to plan and administer the center included personnel from the West Virginia State Department of Education, the Kanawha County public school system, and the five participating colleges and universities. The final report of the West Virginia project explains this aspect of its work in the following manner.

> The purpose of the Pilot Center was to develop an organizational or administrative framework within which the cooperating agencies could function effectively in combining their resources, both human and physical, to provide better quality student teaching experience for students from each institution. Two purposes are included in the preceding statement. One involves the development of an organizational or administrative framework and is therefore process oriented. The other specifies a better quality student teaching experience and is product oriented.
>
> The primary thrust of the Pilot Center was progress. While every effort

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(Portal Schools Continued)

portion of the inservice phase is designed to improve teacher competence by focussing on practical problems in the teaching environment, and provides for released time from classroom teaching responsibilities to do this. The on-campus portion of the inservice phase is designed to add to competence through a more systematic study of matters seen to relate to the higher levels of professional skill envisioned for graduates of this model program.

Specifically the three summer sessions will be used to accomplish three major objectives: (1) to provide a more rational basis for engaging in specified teaching behaviors through the systematic study of selected aspects of professional education, (2) to supplement reality experiences undergone while teaching in the schools, that relate to the behavior broadly classified here as professional responsibility, by studying political and sociological aspects of the teaching profession, and (3) to provide opportunities to pursue various forms of specialization in elementary school education beyond that available in the preservice phase of training. In addition to these three major objectives, some time each summer will be given over to planning for trainees' teaching assignments in the schools for the following year. This will be especially true in the first summer.

From G. Wesley Sowards (Project Manager) *A Model for the Preparation of Elementary Teachers* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Research, 1968.)

> was made to provide a higher quality student teaching experience for each student, it was a basic assumption of those involved in the Pilot Center that this better quality would be a product of the improved process. In short, the limitations and restraints to quality student teaching programs mentioned earlier would continue to inhibit the production of better quality until an organizational framework or pattern was discovered that would permit the cooperating agencies to combine their resources in a more effective way . . . . The Pilot Center provided this operational vehicle.
>
> It might be well to point out here that the term "center" as used in this project, does not refer to a particular building or set of buildings. Rather it refers to the organizational structure through which the project was conducted.*

The Pilot Center serves as an operational vehicle through which the following objectives can be achieved:

a. Strengthen the leadership role of the State Department of Education in the improvement of student teaching programs.

b. Develop patterns of staff utilization which will facilitate the flow of innovative ideas in student teaching both from the theoretical setting of the college classroom and the parctical world of the public school classroom into the testing ground of the student teaching experience.

c. Build an attitude of acceptance, on the part of the public schools, for a greater share of responsibility in planning and implementing student teaching programs.

d. Acquire more effective and efficient utilization of the available physical and human resources of teacher education institutions, public schools, and the State Department of Education in providing student teaching experiences for a rapidly growing teacher education population.

e. Develop an in-service program for supervising teachers designed to increase their effectiveness in directing the experiences of student teachers and to encourage their professional growth toward qualifying for licensure as Teacher Education Associates.

f. Develop a comprehensive student teaching program which would provide the student teacher with a broad range of experiences, and at the same time be flexible enough to meet the needs of student teachers from teacher education institutions of diverse nature and purpose.

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*It is interesting to note that the use of "clusters" of schools, both elementary and secondary, in the West Virginia plan resulted in a geographical concentration of student teachers which permitted emphasis on field seminars described in Attachment B at the end of this chapter. [Ed.]

Teacher Education Centers in Utah

At the time the Multi-State Teacher Education Project was organized, several committees from Utah's institutions of higher education which prepared teachers were in the process of reaching some conclusions resulting from a two-year study dealing with persistent educational problems in teacher education. As early as February 6, 1964, the idea of establishing teaching centers was proposed by a subcommittee of the graduate faculty at the University of Utah. It was thought that centers of this type would tend to bring about a partnership between local education agencies and teacher preparation institutions and that this partnership would enhance the quality of student teaching experiences. The following five conclusions were reached by the subcommittee:[14]

1. The establishment of student teaching centers would require the formation of a genuine partnership through which the public school people involved would have a real impact on the teacher preparation program offered by the University, and the University people involved would have a real impact upon the public school system.
2. The personnel involved in this linkage point would need to be people interested in this function, having open minds about the capacity for developing and exploring ways of improving both programs.
3. The Centers should probably not become innovative experimental schools, although they should be schools on the forefront of improved educational practice.
4. The number of such student teaching centers should probably be large enough to avoid an undue concentration of this kind of function in one school, thus making it unduly conspicuous in a school system.
5. School districts, other than those immediately involved at the beginning, should be potential future participants.

On October 23, 1964, the subcommittee tended its first report to the parent body, which was the Advisory Council on Teacher Education.[15] The report recommended the establishment of student teaching centers which would link together the public schools, the state college of education, and the state board of education in the task of developing qualified teachers. The subcommittee proposed an organization for the centers comprising the administrative council of the university, the student teaching center faculty and council, and three subcommittees to deal with matters relating to (a) the management of student teachers, (b) the curriculum for teacher education, and (c) the curriculum for public schools. In January of 1965, the administrative council for the student teaching center project was organized. The council worked during the entire 1965-66 school year. Among the accomplishments of the council during this period were:[16]

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[14] Edwin A. Read, "The Student Teaching Center Project at the University of Utah." *Final Report of the Multi-State Teacher Education Project in Utah* (Salt Lake City: State Board of Education, September, 1968).

[15] This committee had been organized by the University of Utah in 1962. It consisted of 14 members, 11 from the University of Utah, 2 from the public school system, and 1 from the state TEPS committee.

1. Support for the Student Teaching Project was formally obtained from the Granite and Salt Lake City Boards of Education.
2. The Salt Lake City Board of Education approved a salary schedule which provided extra incentive for teachers chosen to serve in the centers.
3. Several public schools in each district were identified as centers to go into operation the following school year.
4. College students were identified who would be assigned to the first designated centers when school opened in the fall of 1966.
5. Cooperative procedures were established which called for summer planning meetings between center principals and college student supervisors; and September meetings between supervisors, principals, center teachers, and student teachers.
6. Roles of the various participants in the center project were defined, and the channels of communication were clarified.
7. A concise definition for a student teaching center was formulated, and the characteristics of such a school were identified.

The same source continues as follows:

The student teaching was defined as a public school (elementary or secondary) which specializes in providing clinical experiences for the student teacher. It is also a meeting ground where public schools and college programs are examined and brought into harmony in a concerted effort to strengthen teacher education. A student teaching center, when fully functional, was seen as having the following characteristics:[17]

1. A total school staff selected on the basis of their qualifications for and interest in working with student teachers.
2. A sufficient number of student teachers assigned to a school to insure efficiency in terms of the involvement of most staff members, the time of the college supervisor, and the student-faculty ratio in seminars and methods classes.
3. Student seminars which relate directly to the activities of the student teachers, and which involve the cooperative efforts of center

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[16] Read. op cit, p. 4

[17] *Ibid.*, p. 5.

teachers and university professors from the college of education and the academic departments.

4. Faculty seminars which serve as forums where ideas are exchanged between university and public school personnel, and where coordination of programs is achieved.
5. Materials, equipment, and facilities essential to superior teaching.

In the first planning conference to be held by the Utah Multi-State Teacher Education Project on July 22-23, 1966, Dr. A. D. Woodruff of the University of Utah made a report on the student teaching center concept as it was developing at the University. In part, Dr. Woodruff said:[18]

> Student teaching centers are proposed as the ideal setting for a real partnership between the theoretical and practical phases of education, in which each can continuously affect the other. To be most productive, the centers should have the following characteristics:
>
> 1. They should be marked by the best instruction we know how to provide.
> 2. They should avoid innovations of the experimental type.
> 3. They should be as inconspicuous as possible so as to remain in the role of workrooms rather than showrooms or centers of controversy.
> 4. There should be several of them to involve large numbers of people and avoid questions of discrimination.
> 5. They should be staffed with cooperating teachers who take pride and have real concern in inducting new teachers well, and who want to engage in improving educational practice.
> 6. They should include the so-called disadvantaged areas so as to provide an avenue of attack on the problem of finding teachers for the large urban areas.
> 7. Every effort should be made to provide classrooms and equipment which are conducive to superior teaching.
> 8. College faculty members, both from the education and academic departments, should work consistently at the centers to supervise student teachers and to join with cooperating teachers in an effort to improve operations.
> 9. All of those who participate should have a dual participating membership in both the college and the school and have a

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[18] *Proceedings*, M-STEP Planning Conference, Park City, Utah, July 22-23. (Salt Lake City: Utah State Board of Education, 1966), pp. 59-73.

part in shaping the programs in both directions. School and college staff should possess faculty status.

10. Careful evaluation procedures should be employed regularly. Data should be accumulated, interpreted and disseminated.

During the mid-summer of 1966, it was estimated that the center program of the University of Utah would begin on a small scale during the fall of that year or as soon as the necessary administrative arrangements had been made. It was believed that ultimately the program would be expanded to include 20 or more centers in order to meet the University's requirements and to provide facilities for a complete program.

An interesting teaching internship program has been developed at Weber State College in Utah. The plan conbines the features of an internship with team teaching. The interns work in groups of three and spend some time during the summer in preparatory work for a half-year or a full-year internship experience. Summer work includes acquaintances with microteaching, together with general preparation and planning for the upcoming series of direct experiences. This is followed by one week or more of experience in on-the-site planning at the school center where interns will work.

The internship team consists of two half-year teachers and one full-year teacher. At the beginning of the fall session, the three interns spend two weeks on the scene. At the end of this period, half-year intern B drops out to continue full-time work on the campus. Half-year intern A remains with full-year intern C. During the middle week of the winter quarter, intern B returns to the classroom in preparation for his experience during the spring semester. During this week, interns A and B and full-year intern C operate as a team. At the end of the week, intern A returns to the campus for full-time classes, and half-year intern B continues through the spring semester working with intern C andthe various supervising teachers.

The elementary teaching internship program (E-TIP) requires a somewhat unusual set of physical facilities or internship stations. These may be as follows: (a) rooms in pod arrangement (these are large classrooms accommodating approximately 90 pupils each, managed by three regular teachers); (b) groups of individual rooms not in pod arrangement (this plan utilizes standard classroom types; under this plan it is necessary to have more or less contiguous classrooms in a section of the building to be used by the internship team); (c) it is possible to use self-contained classrooms (in this instance each intern will be assigned to one such classroom).

Weber State College also provides an internship program for secondary teachers.

DIAGRAM OF WEBER INTERNSHIP PLAN

<table>
<tr><th></th><th></th><th>1st
2 weeks</th><th>Fall</th><th></th><th colspan="2">Winter</th><th>Spring</th></tr>
<tr><td rowspan="3">Summer Session
Microteaching and emphasis on intern preparation and planning</td><td rowspan="3">Week(s) of intern planning with school</td><td>A</td><td>Intern A</td><td></td><td>A</td><td>112
or
102</td><td>Regular qtr.
15–18 hours</td></tr>
<tr><td>B</td><td>Regular qtr.
15–18 hours</td><td>112
or
102</td><td>B</td><td colspan="2">Intern B</td></tr>
<tr><td colspan="2">C Intern full year
154</td><td>112
or
102</td><td colspan="3">102
or
112</td></tr>
</table>

*Maryland's Teacher Education Center**

From the inception of the M-STEP idea, Maryland accepted the specific assignment to develop a teacher education center with emphasis on preservice training and inservice professional growth of the supervisory or cooperating teaching staff. The Kemp Mill Elementary School in Montgomery County was chosen as the experimental locus for this effort. The Kemp Mill School is a 26 classroom facility with a capacity of 784 students. It has a teaching faculty of 26, plus a principal, assistant principal, full-time librarian, and two school secretaries. This facility has also provided an office for the Maryland M-STEP coordinator and secretary. In addition, the teaching center also has the benefit of full-time services of a student teaching coordinator who, with the principal of the school, shares the responsibility for planning programs for the student teachers assigned to the school in diagnosing their needs and in making adjustments.

Michigan's Twin Valley Living-Learning Center

The essence of this project is to provide a cooperatively developed student teaching experience while prospective teachers are in full-time off-campus residence in the community where they are student teaching. In terms of developing future teachers, the Twin Valley Living-Learning Center has two very important objectives.

1. It intends to provide opportunity for in-depth participation in school and community activities.
2. It expects to provide effective opportunities for studying the teaching-learning process.

***More completely described in Parts II and IV, and in Chapter II.**

Partners in the plan are a public school system and its staff, an intermediate school district, a regional state university, and three liberal arts colleges which prepare teachers. Assistance in planning and development is being provided by the Michigan State Department of Education and the Regional Education Laboratory.

Ultimately, it is planned that an appropriate facility will be developed to house this program. It is expected that the facility will combine residence hall, instructional space, and a resources center including a library. Such a facility will provide a concentrated climate for learning for both the student teachers and the local faculties.

Washington's "Prehiring" Approach

Washington State's M-STEP planners asked themselves the question:

> Under what circumstances would it be most convenient for a school system and a college or university to work together to articulate a program? After some discussion, the Washington State Standards Revision Committee decided that if students could be identified and prehired by a school system a year or two before graduation, that the school system would then feel obligated to open its doors and expend its funds for the training of its future teachers. Similarly, it was felt that if the college or university knew that a group of students was about to be employed in a particular school system, it would be willing to have those students away from the campus for a greater proportion of time, at the same time allowing the students to focus their preservice work on the specific materials and curriculum of the employing school system.[19] It was believed this approach would lead to the design of curricula more appropriate to the needs of students.

Cooperative arrangements were made between three school districts and three colleges and universities. Approximately 25 students from each university were selected for the project and were prehired by the local school districts. Coordinating committees from the university-school districts met regularly to discuss problems and share information. The students agreed to teach in the district for at least two years after graduation. During these two years, they are expected to complete their fifth college year, earning a master's degree and standard certification.

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[19] *M-STEP In Washington: An Adventure in Change.* Final Report of the Multi-State Teacher Education Project for the State of Washington, (Olympia: State Department of Education, June 1968) p. 21.

Research was a built-in component of this experimental approach. The director of the project will continue to study the first group of participants for at least ten years. A comparative study will also be made of an equal number of students not participating in the program.

Florida's Clinical Approach

In Florida, the Department of Education and the Teacher Education Advisory Council have changed the entire approach to the development of guidelines for teacher education. They now stress the skills, attitudes, and knowledges that professional teachers need, rather than courses and credits. Institutional personnel are discussing innovative practices such as microteaching, systems for analyzing teaching, and creative schemes for cooperating with school systems in teacher education.*

The new structures developed by the M-STEP states to make student teaching a more effective process all stem basically from three ideas: (1) designing new and effective classroom-based sequences for the acquisition of teaching skills, and adapting these sequence to individual needs of prospective teachers; (2) making student teaching a cooperative venture administered jointly by the public schools and the colleges or universities; and (3) making the participants' successful completion of a student teaching program depend on the proven acquisition of specific skills and understandings.

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*The Florida M-STEP operation is more completely described Part II, of Chapter III, and in Chapter II.

Part IV. M-STEP Has Changed Professional Laboratory Experiences

The M-STEP planning and activities described in the preceding sections are a waste of time, money, and talent if they do not influence what happens to the individuals who are preparing to become teachers.

Have M-STEP efforts improved the content of professional laboratory experiences, and the methods by which students in training receive these experiences? This section reports examples of the impact M-STEP has made on the "ultimate consumer" - the individual working in a school situation and participating in various capacities in the clinical approaches to teaching.

How Behavior Analysis Has Affected Student Teaching

In several M-STEP states, teacher education staffs have become involved in analyzing and listing desirable teaching behaviors. This is preliminary to applying the systems approach to laboratory experiences-an approach whereby the student must learn a specific teaching skill and demonstrate his knowledge of it before moving on to the next skill.

A. Utah's Experiment with Behavior Analysis

Faculty members at Utah's Brigham Young University feel that the ability to perform specified behaviors is a more rational basis for teacher certification than the accumulation of courses and credits. As the first step in an experimental program for prospective secondary teachers, the faculty worked at some length to determine desirable behavioral objectives for teaching. Their original list of 60 objectives was based on research that had been done on essential teaching behaviors. Additional objectives were added after an analysis had been made of communication problems existing between teachers and parents, pupils, and administrators. Some of the objectives emerged as the staff shared their own personal experiences as teachers and teacher supervisors. Information about student participants in the project - their similarities, differences, needs, abilities, development patterns and styles of learning - produced more objectives.

The identification of these objectives gave direction to the identification of concepts and skills which a student must have at his command in order to perform the behaviors which are specified. Once terminal behaviors and their related concepts and skills were identified and placed in sequence and priority, the entire range of curriculum was open to all of the students. Specification of behavioral objectives also provided the opportunity to preassess the prospective teacher's abilities and to determine the point at which instruction for that individual should begin.[20]

A second step in the systems approach was the recognition of instruction so as to achieve desirable behavioral goals. The instructional program consisted of a non-coursed, integrated presentation of organized content lasting one semester, and of student teaching, during which the students used in classroom situations the instructional materials they had prepared during the academic semester. Instruction during the academic semester moved the students, step by step, toward the acquisition of specific behaviors:

> When the student finishes the required learning activities for a given objective, he is given a test designed to assess his attainment of the objective. These tests include a wide variety of activities and formats as required by the objective, and are not limited to paper and pencil devices. If the student's performance is satisfactory, he moves to the next objective. If his performance is not satisfactory, he meets with one of the faculty members to identify additional learning experiences. A trainee may not be certificated until he accomplishes all objectives according to the established criteria.[21]

During the student teaching phase of their preparation, trainees worked in teams with cooperating teachers in the public schools, where they spent one-half of each week day for eight weeks. Curriculum materials prepared by students of the team during their academic instruction were used in the school classroom. The same college staff members who supervised their academic instruction supervised their student teaching. The students continued to prepare and revise the curriculum materials while using them in the classroom. They also microtaught before videotape recorders, so they could view and evaluate their own teaching behaviors. As of April 1968, this experimental program had trained 60 secondary teachers during four semesters.

When officials of Brigham Young University evaluated the student teaching experiences of these teachers, they saw many strengths in the new approach. It takes into account individual differences and allows students to progress at their own best pace. The students are team taught and work together as teams; this gives them opportunities to teach in large and small groups and to individualize as they teach. Team teaching reduces the number of classroom stations, allowing the staff to be more selective in the process of assigning students to classrooms and cooperating teachers.

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[20] Utah M-STEP Monograph Number 2, *The Individualized Secondary Teacher Education Program at Brigham Young University*. (Salt Lake City: The Utah State Board of Education), p. 4

[21] *Ibid.*, p. 31.

The program uses many of the best teacher-training techniques to achieve its behavioral goals, such as inquiry training, interaction analysis, microteaching, and curriculum design. Application of these methods reduces the possibility that a student will model his behavior after that of one inferior teacher, thus obviating the danger of perpetuating some weaknesses of the present education system. Effective inservice education of cooperating teachers in the public schools is an essential part of this student teaching project and an important element in its success.

Because of the carefully planned systems approach, unnecessary overlap in professional courses has been eliminated.

Even students' feelings about teaching have been affected. The graduates seem to have more positive attitudes toward themselves as teachers and toward teaching as a profession.

Additional details of the individualized program in Utah will be shown in two succeeding chapters.* Also please see Attachment C (Hite), this chapter.

B. Washington State's Experiment with Behavior Analysis

A pilot project developed under M-STEP brought the Bellevue (Washington) Public Schools and Washington State University (along with two other university-school combinations) into a working relationship for the improvement of teacher education. One of the project's basic activities was the development of a list of teacher performance behaviors which has influenced other teacher education activities throughout the state.

The list is based on a teacher competence study developed by the Bellevue Education Association in 1965.[22] The behaviors were organized into a sequence of learning tasks, and a systematic scheme was set up to educate selected students to perform these tasks.

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* An Individualized Secondary Teacher Education Program by Baird, Belt, and Holder and A Teaching Behavior Code by Woodruff and Taylor.

[22] Washington State University and Bellevue, Washington, Public Schools Career Teaching Project, Herbert Hite, Director. (See attachment at end of chapter for list of tasks and an example of the training system.)

> Instead of taking the regular senior program in professional education, students in the M-STEP program were confronted with twenty-five instructional tasks . . . . These tasks were assigned to be undertaken by students on an individual basis. Students who were engaged in the same task at the same time were encouraged to work together. The judge of whether or not the student was able to complete the task successfully was the student himself, based upon feedback data provided to him by the instructional system, his peers, the faculty, video and audiotapes, etc.[23]

Student participants in this M-STEP program spent the second semester of their senior year in the Bellevue school system as student teachers. The normal procedure had been for students to spend a half-semester in student teaching, the other half taking education courses. It was not assumed that all students were at the same achievement level in carrying out teaching tasks. Instead, each student took his own assessment of himself to the student teaching situation because it was felt that teacher education should develop from the unique needs of the individual rather than force the individual into a set structure of courses.

Those who supervised this experimental approach say that it appears to have clear implications for the future of student teaching:

> These tentative ideas seem warranted: when college students are clear as to what they are supposed to learn and at the same time see the significance of the confronting task to their own professional development, they assume responsibilities for their own learning, they superimpose upon the university faculty new ways of working. They use faculty as consultants. They show real zest for their studies. They stay away from lectures or telling behavior of professors and seek out learning assistants or advisors who listen more than talk.[24]

The Bellevue-Washington State University experimental program involved the following steps:

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[23] *M-STEP in Washington: An Adventure in Change.* Final Report of the Multi-State Teacher Education Project for the State of Washington, June 1968. pp. 51-52.

[24] *Ibid.*, p. 54.

1. Identification of desirable behaviors by Bellevue.
2. Definition of specific tasks to teach desired behaviors at WSU.
3. Organization of appropriate experiences, materials, and facilities to teach the specific teaching tasks.
4. Reorientation of college professors to the individualized method of teaching based upon specific performances.
5. Establishment of appropriate guidance resources for students including sensitivity training.
6. Training of supervising teachers in Bellevue and applying systematically the behavioral approach to student teaching.
7. Establishing close personal relationships between the trainees on the campus and the Bellevue staff.
8. Establishing resident M-STEP supervision in Bellevue during the second semester program.
9. Providing periodic feedback to trainers and trainees on the campus in the district, and between the district and the campus.[25]

Additional details of this program are available in the Appendix.

How Video Processes Have Affected Student Teaching

For the first time in history, teacher educators have access to a process that encourages and promotes creative learning on the part of student teachers. In the past, imitation of the supervising teacher, or of teachers encountered by the student teacher during his earlier years, has been an accepted process in teacher education. Unfortunately, the imitation approach has serious hazards. If the imitated teacher is a poor teacher, his weaknesses tend to be perpetuated. Imitation can also inhibit progress in the teaching art, for creative development of new and better teaching techniques is not encouraged when the student teacher learns by imitation.

Emergence of the videotape recorder into the teacher education scene is changing and - in some aspects of its use - abolishing the imitation approach. Realizing the revolutionary potential of this new teaching tool, M-STEP planners cited as one of the project's original goals "the exploration of new functions for television and video processes in teacher education." This exploration has made significant changes in the experiences of student teachers in the M-STEP states.

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[25] *Ibid.*, p. 54.

A. Microteaching

Microteaching is a technique whereby a student teacher's instructional performance is recorded by videotape as he teaches one short lesson to a group of students. His teaching performance is played back immediately, and discussed by himself, his peers, and his supervising teacher. Utah's Brigham Young University has been experimenting with microteaching since 1966.

> Microteaching as practiced at Brigham Young University consists of the presentation of a four- to eight-minute lesson by a trainee to a "class" composed of three to five local elementary or secondary students. This presentation has as its aim the demonstration of a specific behavior. With the student teacher and the volunteer "class" are the other members of the trainee's teacher education class and the course instructor.
>
> As the lesson is presented, it is recorded on videotape. The instructor-evaluator observes the trainee's teaching effort and jots down suggestions for improvement. At the conclusion of the lesson, the "class" members and the college class complete evaluation forms.
>
> The instructor and the trainees discuss, in a general, usually positive way, the performance. The instructor may make suggestions about what to look for during the playback.
>
> One of the aims of the evaluation session is to prepare the trainee to reteach his lesson. At the conclusion of the evaluation, the instructor and the trainee decide on one or two areas of major difficulty on which the student will concentrate in his next presentation.
>
> Some examples of specific behaviors sought at Brigham Young University are:
>
> 1. Teaching a concept
> 2. Reinforcing student behavior
> 3. Asking appropriate questions
> 4. Interesting and involving students
> 5. Giving assignments
> 6. Using inquiry training
> 7. Teaching a concept non-orally.[26]

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[26] H. E. Bosley and H. E. Wigren., (eds.), *Television and Related Media in Teacher Education.* (Baltimore: Multi-State Teacher Education Project, August, 1967), p. 20.

Use of videotape recorders is spreading rapidly in Utah institutions. From an experimental project, microteaching has expanded at Brigham Young University and at the University of Utah until now many teacher education majors find it a regular part of their student teaching experience.

Student Reaction to Microteaching

Student teachers in the Utah programs are enthusiastic about their microteaching experiences. In a random sample of the 730 students who did microteaching at Brigham Young University in 1967, almost nine out of ten said the experience showed areas where their teaching could be improved. Seventy-six percent said that microteaching had changed their self-image as teachers.

Several developments and recommendations have been reported as a result of more than two years of experience with microteaching at the University of Utah. In his *Report of Micro-Teaching Curriculum and Development at the University of Utah,* 1967-1968 (Salt Lake City: University of Utah, 1968), Earl W. Harmer, Jr., observes:

1. Microteaching procedures are an established part of the teacher education program at the University.
2. All personnel with the Department of Education are conversant with microteaching techniques and skilled in the use of video recorder equipment.
3. Microteaching techniques are being used in inservice education with local school districts.
5. Numerous departments outside the College of Education have either utilized microteaching or expressed an interest in potential use.
6. Microteaching clinic rooms should be developed which nearly as possible are representative of the best K1-12 grade classrooms.
7. A valid and reliable code for the analysis of teaching constitutes the most crucial current need.
8. Sophisticated research and evaluation of microteaching is necessary.

Table 1
Evaluation of Microteaching Experience at Brigham Young University[27]

Statement	Very True	Somewhat True	Somewhat Untrue	Not True
Microteaching (including videotaping) as a technique to evaluate my teaching:				
1. Changed my self-image as a teacher	35%	41%	20%	4%
2. Indicated to me areas where I can make improvement	88	9	3	0
3. Is not much more than just a novel experience	6	4	11	80
4. Could be easily replaced by other, more ordinary experiences	6	7	10	78
5. Is embarrassing and discomforting	4	23	32	41
6. I would like more opportunities to be taped.	58	24	6	12

Evaluating the learning activities provided in Teacher Education 301, 87 percent of a random sample of students from three sections (N=41) rated microteaching as "excellent." No other learning activity provided during the course was rated "excellent" by more than 37 percent of the students.

How Student Teaching Centers Have Affected the Student Teacher

Teacher education centers, described in Part III, provide teacher trainees with unique student teaching experiences - some of which are only possible in a center setting. A student teacher in one of the M-STEP centers benefits from the following approaches:

- He is assigned to several supervising teachers instead of one. He thus enjoys a wider variety of teaching experiences and has more than one teaching style to emulate.
- He has opportunities to work in more than one classroom. Students are encouraged to work not only with the age group they are particularly interested in, but also with other age levels and grades.
- He has a closer, more vital relationship with the college supervisor who, in a student center, has the title of teacher education coordina-

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[27] M-STEP Monograph Number III, *Video Processes in Teacher Education Programs.* (Baltimore: Multi-State Teacher Education Project, September 1968), p. 11.

tor. The coordinator is on call for student teachers at all times, rather than making visits at infrequent intervals. His conferences with student teachers are more meaningful and individualized because he knows each student well, is familiar with the program for children, and knows the supervising teachers.

- His activities are planned by the center coordinator to provide him with many and varied experiences. "L. O. Andrews has said that during his professional experience in colleges it is possible for the prospective teacher to gain more observation experience than a classroom teacher can have in 40 years of teaching. If we arrange the experience sequences properly, it seems we can fully do what Dr. Andrews suggests."[28]

- He becomes involved with activities outside the classroom. He is encouraged to become active in community, school system, and university affairs, and to see his role as a professional educator in these different settings.

- He possesses status of the center staff. In Maryland's Kemp Mill Center, for example, the student teachers arrive in August when the teachers arrive, and are greeted by the principal, who shows that she is pleased to be working with them. They take part in the orientation activities arranged for the regular faculty.

- He receives special orientation to his own program. The principal and the center coordinator give the student teachers a preview of the experiences provided, the program for children, some characteristics of the county and local community, and - if possible - the kinds of families and children with whom they will be working.

- His individual needs are analyzed and met. Some teacher trainees bring to student teaching more experience than others in working with pupils. Their abilities, strengths, and weaknesses vary, so that they require individualized help rather than a standardized program of student teaching. A student, therefore, might work for several weeks with individual children before tackling group situations. Each student's program develops from continuous consultation with guidance from the center staff.

- He observes expert teachers from other schools. Resource persons in the county school system come to the center to demonstrate good teaching techniques. After the lesson is completed, the students have an opportunity to ask questions. The students are also encouraged to call upon other resource persons in the school system - usually specialists in a particular area of teaching.

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[28] Maryland M-STEP Monograph, *The Kemp Mill Teacher Education Center.* (Ms.)

- He has access to videotape equipment. A teacher education center is more likely than the average public school to have video equipment. Student teachers in centers, therefore, have more opportunities to do microteaching and to engage in simulation processes.
- He becomes acquainted with the children's families. Student teachers in centers are encouraged to take part in PTA activities and to make home visits along with supervising teachers.
- He has opportunities to visit other schools. When a nearby school is conducting a special project or curriculum study, the student teachers are encouraged to visit the school and perhaps spend some time there.

The Way Ahead

The professional laboratory experience, as provided in the dynamic programs described above, shows little resemblance to that undergone during their college years by the majority of teachers in today's classrooms. But the perfect laboratory experience program has yet to be devised. There is still ample room for improvement - still many areas that need to be revitalized.

As professional educators, we must insist, with all the vigor at our command, on the constant improvement of laboratory experiences in teacher education. We must do more than insist. We must take action in the following ways:

1. We must improve the effectiveness of student teaching stations and develop criteria for selecting schools in which direct learning and clinical experiences occur. We should consider the advantages of maintaining a cluster or group of schools with regional organization staff and facilities, in some form of teacher education center.
2. We must learn to use staff time more effectively.
3. We must put new life into the content of clinical experiences. This can be done in various ways:
    (a) By devising new experience sequences, drawing upon recent developments in the behavioral sciences,
    (b) By diagnosing each student teacher's developmental needs and setting up flexible systems for individual growth,
    (c) By setting up "on-the-site" courses and seminars, operating concurrently with laboratory assignments, using laboratory situations as core factors in sharing experiences and deepening professional concepts,

(d) By increasing the time period during which the prospective teacher participates in clinical experiences. Clinical work should begin during the first year of college and should extend into the post-graduate years, in a carefully planned sequence.

4. Experimental effort should be augmented in providing new curriculum patterns in behavioral change and in the utilization of new technological developments. The approved program approach in preservice teacher education now existing in many states permits this. Though state departments of education are usually required by law to exercise a regulatory function, the approved program concept permits development and operation of experimental curricula in individual institutions. Teacher education faculties should thereby be encouraged to move into innovative areas. When state departments of education make this interpretation of the approved program concept, institutions find the way open toward new horizons.

   Examples of changes which can be undertaken include the development of "models" in teacher education which may embody revolutionary modifications in curriculum design which influence total programs. The impact of broad spectrum utilization of television and related video resources and processes on current curriculum patterns can be appraised and modifications in curricula can be effected.

5. Programs should be devised to train top level instructional personnel who serve in the field as team leaders and who can assist in the preservice programs of teachers. Institutional programs should begin to reflect the need for differentiated staffing assignments. Requisites for success on the "professional ladder" should be based at least as much on professional training as on successful experience.

6. Bold new programs must be launched in teacher education. Repair efforts on old curricula are insufficient. Examples of new designs are beginning to appear.

The scope and content of professional education program components included in a proposal by Michigan State University[29] are stated in condensed form below. Also please see Attachment A, Reference to a Model Plan, at the close of this section, for a Florida State University plan.

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[29] Nicholas A. Fattu, *Nine Proposals for Elementary Teacher Education* (Washington, D.C., Department of Health, Education and Welfare, Office of Education, 1968.)

Clinical Experience I - Tutorial. This component provides early experiences with children during the first two years of college. The purposes are (1) role identification, (2) self-screening, (3) reality testing, (4) sensitivity training, and (5) general awareness of people. During this two-year period the student will work in one or more child-related roles.

Human Learning: A Systems Approach - Sequence I. Behavioral areas for which planned experiences will be provided are (1) the exploration of human capacity, (2) the understanding of environmental systems, and (3) inquiries into cognitive development.

Clinical Experience II - Analytical Study of Teaching. Simulated or real classroom situations of three types will be provided:

(1) Each student analyzes a set of classroom vignettes or visually recorded classroom scenes, and his reactions are expected. Questions are posted such as, "What conditions existed?" "What decisions did the teacher make?" "How could the learning situations have been improved?"

(2) Each student works with simulated classroom episodes.

(3) Each student works with three to five pupils in a microteaching experience. This is videotaped and reviewed and evaluated by the student.

Clinical Experience III - Team Teaching. The team will consist of an intern consultant, four interns or experienced teachers, and two student teachers. The team will function as a unit, and will provide instruction in four elementary classrooms.

Structure and Use of Knowledge. Instructional strategies will be emphasized, with special applications to mathematics, science, language skills, social studies, and reading.

Clinical Experience IV - Internship. This will be a teaching assignment under the guidance of an intern consultant. Stress will be placed on improving instructional strategy and skills.

Human Learning - A Systems Approach - Sequence II. This will operate concurrently with the internship, and will consider learning in a series of environmental systems.

Clinical Experience V - Research Teaching. This is an inservice arrangement for certified teachers.

Teaching and Research Assistantships will provide a built-in re-cycling procedure whereby practicing teachers return to the campus to work with undergraduates and do research. This plan serves the dual purpose of revitalizing the undergraduate program and increasing the competencies of practicing teachers.

Focused Content Study. Inservice teachers will continue study in a selected subject field.

Advanced Behavioral Science Study. This will include graduate work for inservice teachers.

Clinical Experience VI - Professional Instructional Leader. This will be a program designed for strong post-master's degree teachers, on a selective basis. Its content will be broad, so as to permit writing, trying and evaluating new materials, and studying in exemplary schools. It will include seminars in research and technology, teaching strategies, and clinical practice, and would be tailored to plans and needs for individual development.

As with any worthwhile endeavor, the way ahead to the "perfect" laboratory experience situations may not be an easy one. Only the concerted efforts of those dedicated to the improvement of teacher education programs will effect the educational reforms we need for our changing world. The past, indeed, is prologue.

ATTACHMENT A

Reference to a Model Plan – Florida State University[30]

Part IV of this chapter has dealt with examples of ways in which strengthened and reoriented curricula can improve professional learning opportunities for teachers. It may therefore be appropriate to make a brief presentation from one of several model programs recently prepared by selected university resource teams for consideration and possible funding under federal assistance.

The brief extraction provided herewith is intended to show significant and unique aspects of the model curriculum, especially the ways in which it affects the learning sequences and time schedules of prospective teachers. After exhibiting a design indicating the existence of a preservice and inservice phase, with a schematic detail of the former (Figure 5), one program segment[31] of the Model context describes its preservice features.

> There are five major and unique features of the preservice program: *self-paced experiences* rather than courses; *criterion-referenced performance evaluation* rather than standard grading; *sequenced theory-practice contiguity;* progressive *synthesis experiences;* and a *computerized management control system* with feedback capabilities.
>
> The self-paced experiences feature will allow trainees to move through the program at their own rate rather than by some arbitrary time schedule. Although certain formal courses will be taken during the preservice period, the professional training component is comprised of a series of sequenced experiences in which the trainee will engage at the point of readiness. These experiences are provided to prepare the trainee to meet performance expectancies of the program.
>
> Performance evaluation which tests the trainee's ability to meet specified criteria, will indicate whether or not a given training experience has been successful. If so, he will proceed to the next training sequence. Otherwise, another experience in the same area will be prescribed (see Figure 6). Initial evaluation for certain knowledge and skill tasks may be based upon standard paper and pencil tests. Major evaluation of teacher behaviors, however, will require the trainee to demonstrate first a simple skill or technique, then to synthesize a group of related skills, and finally, to carry out a complex

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[30] G. Wesley Sowards, (Project Manager) *A Model for the Preparation of Elementary School Teachers* (Washington, D.C.: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Research, 1968).

[31] *Ibid.*, pp. 50, 52, 53.

set of teaching tasks in which planning of objectives, selection and organization of content, implementation through strategic interactions, and evaluation of outcomes are utilized in a professionally responsible manner.

Sequenced *theory-practice contiguity* will be accomplished through the use of observation, simulation, microteaching, and other activities which either approximate or actually utilize elements of classroom experience. When appropriate, the need for learning a principle or technique will be established inductively from such experiences. Conversely, as soon as a trainee has demonstrated knowledge of a principle or familiarity with a technique, he will have a chance to practice it and show evidence of direct application. If improvement or a revised interpretation is shown to be necessary, the trainee will have immediate opportunity to improve or revise before an incorrect response is established.

Closely related to the idea of theory-practice contiguity is the feature of *progressive synthesis* experiences. One of the requirements of a program in which a set of complex, interrelated tasks is taught is the provision of opportunities to practice the tasks in situations where the contexts of interrelationships can be experiences. Not only will the trainee be expected to concurrently make practice application of principles he is learning, but as he moves through the program, he will be expected to synthesize new skills as he progressively approximates an integrated set of teaching behaviors. Along with this gradual synthesis must come a progression toward the greatest possible realism in instructional setting. The program thus demands the provision of a sequence of practice-type experiences which progress from application of principles in analysis activities to the reality of classroom teaching responsibilities.

Although the total range of practice experiences is utilized at any point in the trainee's program where deemed appropriate, a normal progression provides for:

1. Systematic analysis of taped or actual teaching episodes;
2. Response to simulated instructional situations;
3. Teaching in small scale situations such as one-to-one tutoring, and microteaching.
4. Single task teaching to normal size groups such as teaching a unit of work to a class; and
5. Reality experiences in which a trainee takes a major respon-

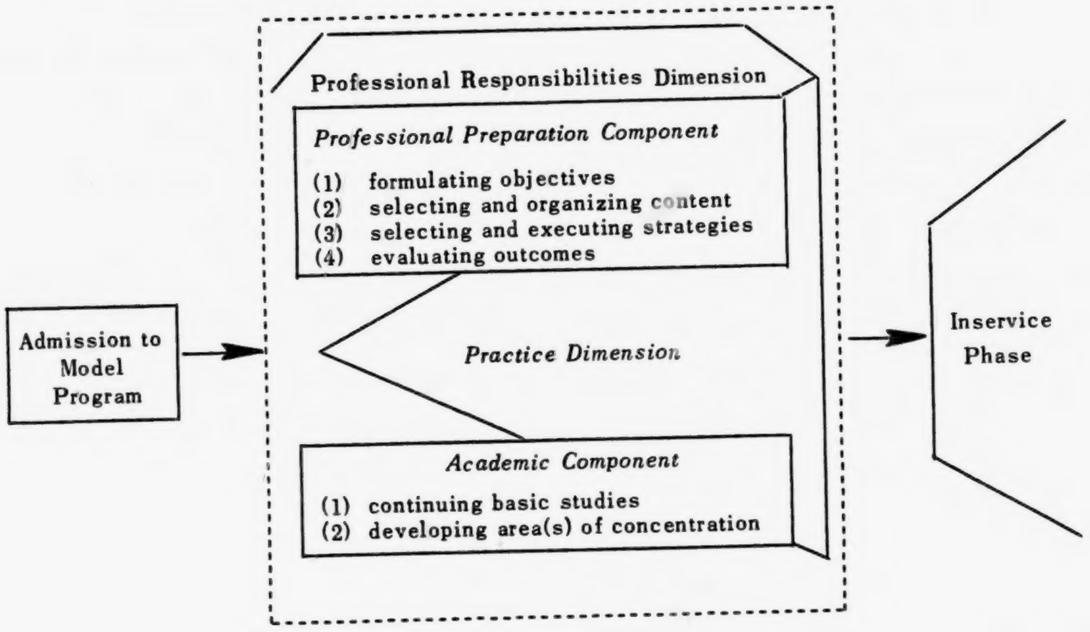
> sibility for teaching a group of students over a period of time sufficiently long to enable him to meet performance criteria for beginning teaching.

The *computerized management control system* will provide detailed monitoring of trainee performance, progress, and status. It will also permit continuous evaluation and revision of all program elements. In a sense, it is this feature which makes all the other features practicable, since flexible scheduling is required in order to effect the continuous rearrangement of experiences for each trainee. This will be accomplished by a program manager who will receive reports on current and projected trainee activities from the computer with a frequency and accuracy such that staff, material, and resources needed will be readily apparent.

The self-paced experience schedule, and its recycling adjustment features, are shown graphically in Figure 6.[32] Significant features of the related inservice phase are indicated in Figure 8.

A very lucid diagrammatic portrayal of student progress through the proposed model program is indicated in Figure 10.

Figure 5
PRESERVICE PREPARATION PHASE*


Professional Responsibilities Dimension
Professional Preparation Component
(1) formulating objectives
(2) selecting and organizing content
(3) selecting and executing strategies
(4) evaluating outcomes
Admission to Model Program
Practice Dimension
Inservice Phase
Academic Component
(1) continuing basic studies
(2) developing area(s) of concentration

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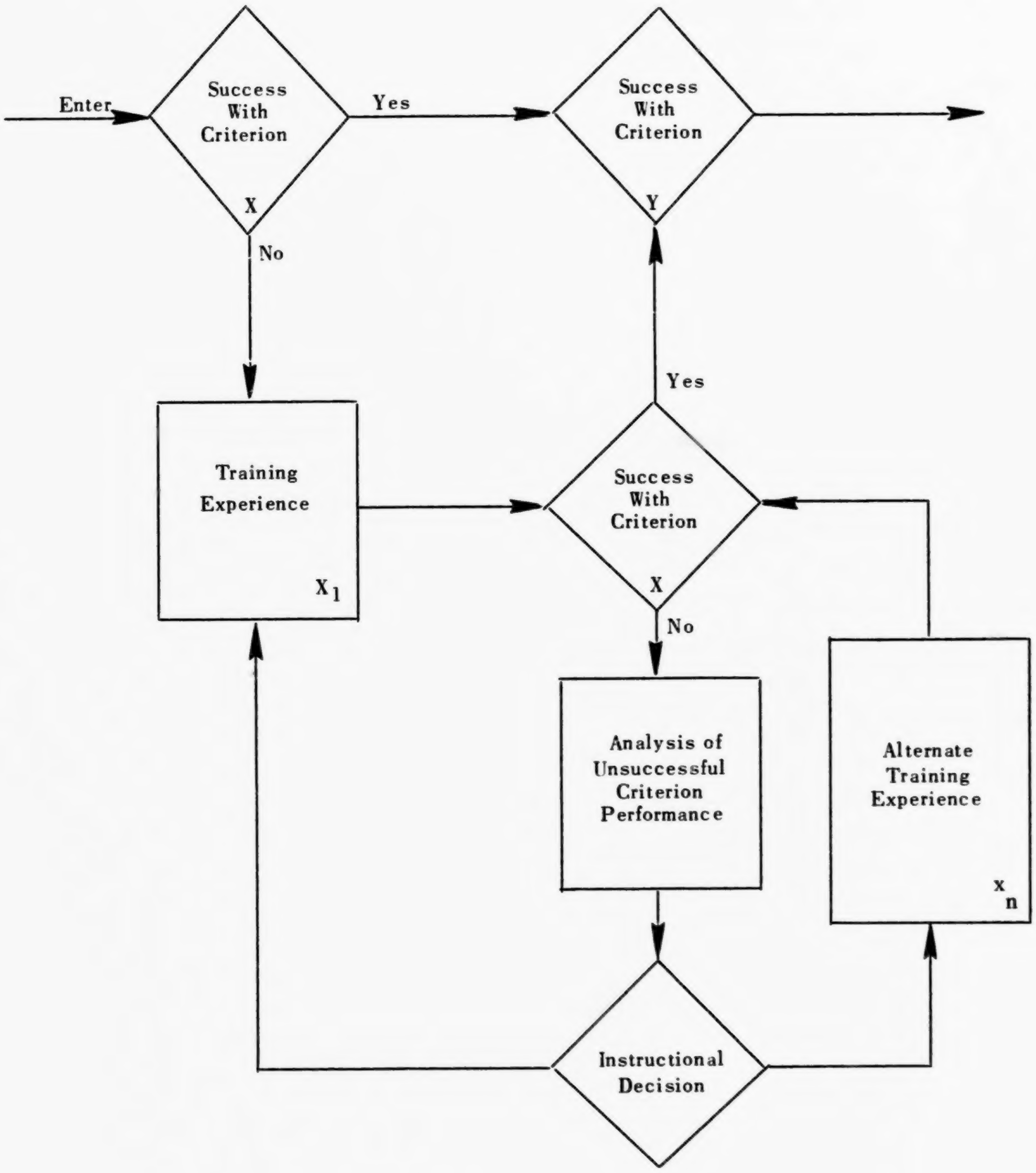
[32] *Ibid.*, p. 51.

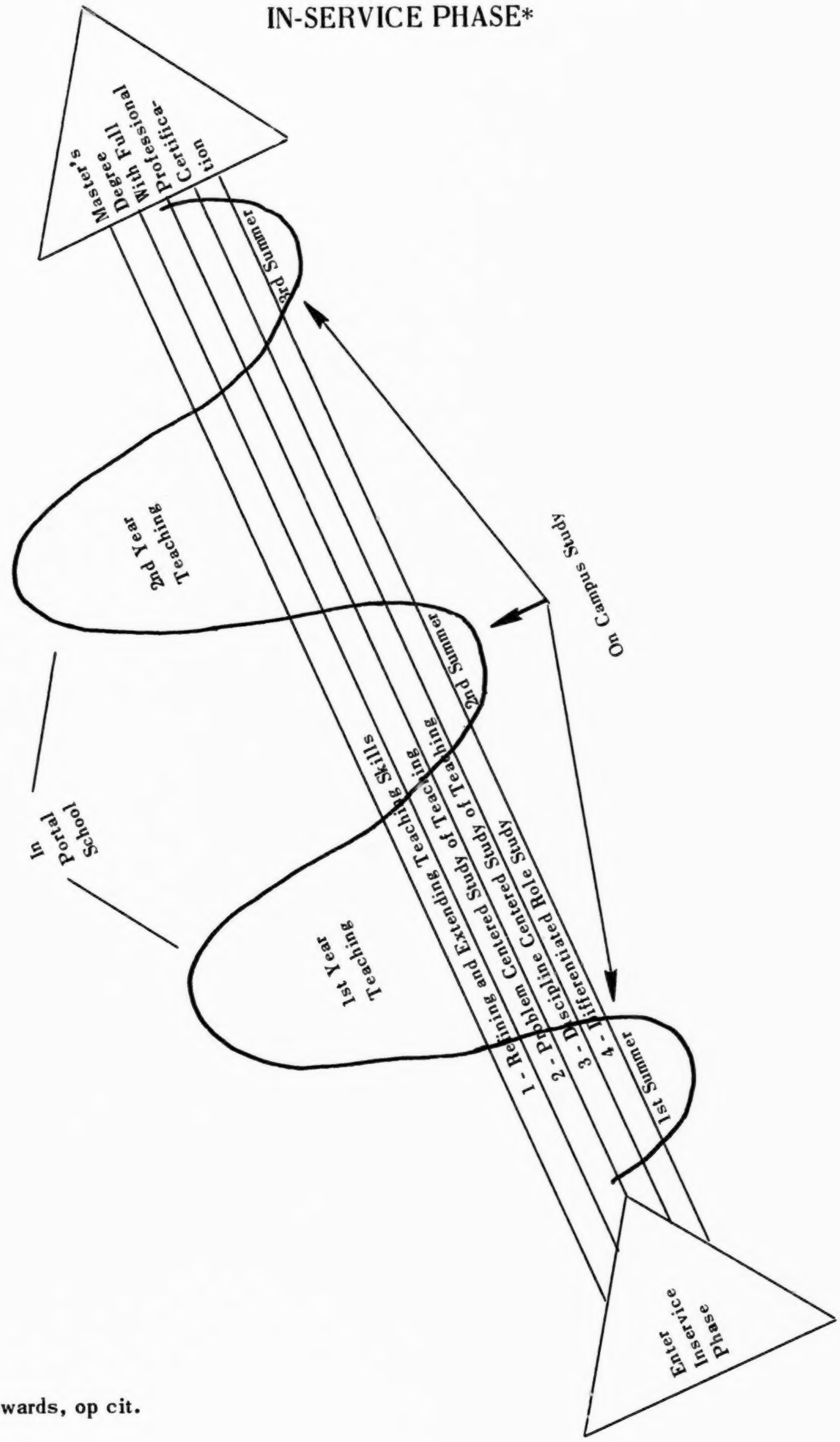
*Sowards, op. cit.

Figure 6
TYPICAL TRAINING EXPERIENCE WITH RECYCLING PROVISION *



*Sowards, op cit.

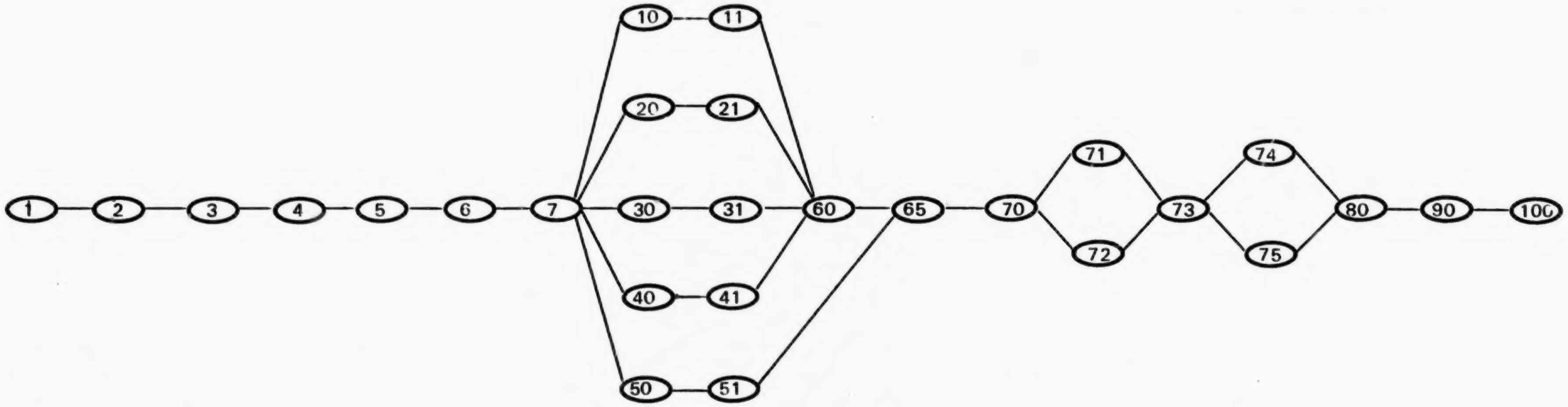
Figure 8
IN-SERVICE PHASE*


Master's Degree Full With Professional Certification
3rd Summer
2nd Year Teaching
On Campus Study
2nd Summer
In Portal School
1st Year Teaching
1 - Refining and Extending Teaching Skills
2 - Problem Centered Study of Teaching
3 - Discipline Centered Study
4 - Differentiated Role Study
1st Summer
Enter Inservice Phase

*Sowards, op cit.

Figure 10

GENERALIZED PERT NETWORK OF STUDENT PROGRESS THROUGH TRAINING PROGRAM*



1	Student application received
2	Initial screening completed
3	Student accepted for program
4	Entry skills and knowledge measured
5	Counseling professor appointed
6	Student counseling started
7	Program established
10-11	Formulation of objectives criteria met
20-21	Selection and organization of content criteria met
30-31	Employment of appropriate strategies criteria met
40-41	Evaluation of outcomes criteria met
50-51	Demonstration of leadership and professional responsibilities criteria met
60	Synthesis of objectives, strategies, evaluation, techniques, and content
65	Bachelor's degree and provisional certification awarded
70	First summer program completed
71	Academic year of teaching completed
72	Academic year of practical problems completed
73	Second summer program completed
74	Second year of teaching completed
75	Second year of practical problems completed
80	Third summer program completed
90	Master's degree and full professional certification awarded
100	Teacher training program completed

*Sowards, op cit.

ATTACHMENT B

West Virginia M-STEP Pilot Center for Student Teaching
The Student Teaching Seminar

I. DESCRIPTION

The weekly seminar, an opportunity to share experiences and disucss problems of mutual concern, will be partially problem centered and partially structured around selected topics. Each participant will be expected to study assigned reading materials related to the topics to be discussed in the seminars. Additional reading assignments may be made on topics as determined by the seminar director and/or the supervising teacher. The leadership, provided by the M-STEP staff, college and university supervisors, and Kanawha County personnel, will endeavor to guide rather than dominate the student oriented sessions.

Seminar sessions will be scheduled, for the most part, on Tuesday afternoons after school and will be one and one-half (1½) hours in length. Specific meeting times and locations will be determined in accordance with the demands of the public school schedules and the needs of the student teachers.

II. OBJECTIVES

A. To provide an orientation period for student teachers with respect to the nature of their opportunities and responsibilities during student teaching.

B. To acquaint the student teacher with the philosophy and practices of the cooperating school system.

C. To provide a forum for the exchange of ideas and the discussion of common problems among students from the five cooperating teacher education institutions.

D. To aid the individual student teacher to develop further competencies, to reflect and draw on the teaching situation in order to strengthen and develop essential teaching skills.

E. To provide experiences which enable the student teacher to relate theory and practice.

F. To provide activities which stimulate and continue the professional growth of the student teacher.

ATTACHMENT C

SAMPLE PAGES FROM

An Experimental Model for Preparing Teachers to Develop Behavioral Objectives

Prepared by

The Washington State University

and

Bellevue Public Schools Career Teacher Project*

Herbert Hite, *Director*

PREFACE

The six ''Tasks'' constitute an experimental model of a training system which is designed to enable teachers to write behavioral objectives. This prototype system aims at having teachers write behavioral objectives at various levels of complexity and for all domains of learning behavior.

The prototype system was part of an experimental model for teacher education developed at Washington State University in the fall of 1967, Besides these six "Tasks,'' WSU staff developed and tested other systems which enable teachers to carry out their behavioral objectives. The experimental model is being tested in cooperation with Bellevue, Washington Schools and the Washington State Superintendent of Public Instruction. A description of the whole project, The Career Teacher, appears on pages 155 through 161.

The WSU - Bellevue Career Teacher Project is a phase of the Multi-State Teacher Education Project, funded by Title V of the Elementary Secondary School Act.

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*A phase of the Multi-State Teacher Education Project partially financed with funds provided by Title V of the Elementary and Secondary Education Act of 1965.

LABORATORY EXPERIENCES

The Career Teacher Project At Washington State University And The Bellevue Public Schools.

Washington State University and Bellevue Public Schools are collaborating in a teacher education experiment to demonstrate the following propositions:

1. Standards for teacher education should be descriptions of performances by the effective teacher.
2. The University's program of teacher education should consist of ways and means for helping as many candidates as possible demonstrate effective teaching performance.
3. The cooperating school district should provide opportunities for the beginning teacher to continue the practice and study of these specific teaching behaviors.

During 1966-67 a committee from Bellevue and Washington State University developed a list of the characteristics of what they conceived to be an effective teacher. The WSU Department of Education staff then stated these characteristics in terms of behavior. These descriptions of what the effective teacher does in the classroom became the "standards" for the Bellevue-WSU demonstration. There follows a list of 25 tasks for teacher candidates at WSU. These tasks are the new standards, and the behavioral objectives of the program, inasmuch as they describe the effective teacher in the classroom.

The demonstration is limited to the technology of teaching. Other important characteristics of effective teaching which are not part of this particular demonstration are abilities to use a knowledge of the foundations of education, and skills in working with members of the community and profession.

A. Determine Objectives.

Task 1. Define "behavioral objective," and list characteristics of behavioral objectives.

Task 2. Distinguish between objectives which are behaviorally stated and those not so stated.

Task 3. Write behavioral objectives for learning activities appropriate to trainee's special field of teaching.

Task 4. Write objectives for own field of cognitive domain of behavior: (a) for knowledge level of behavior, and (b) for higher levels of behavior.

Task 5. Write objectives for own field for effective domain.

Task 6. Write objectives for own field of psychomotor domain.

Task 7. From Bellevue curriculum guides and other sources, trainees select examples of objectives which illustrate, (a) convergent thinking, (b) divergent thinking, (c) evaluative thinking.

Task 8. Trainees state how the objectives they have written for preceding tasks are appropriate to (a) societal needs, (b) developmental needs of the youth he will be teaching, (c) structure and methods of inquiry of the discipline from which the objectives are drawn.

B. Modify objectives to meet individual differences.

Task 9. State prerequisites for given objectives.

Task 10. Write descriptions of procedures for assessing the degree to which different types of learners are likely to possess the necessary prerequisites for a learning task (including, interpret individual Bellevue student scores and profiles obtained from batteries of standardized tests).

Task 11. Write modified objectives for different types of learners.

C. Select media which implement appropriate practice of the desired pupil behavior.

Task 12. Choose from among available media, and justify choices in terms of (a) relevance of content, and (b) appropriateness of media's characteristics to the desired behavior.

Task 13. Select media appropriate to different learners' characteristics.

Task 14. List sources of media available for trainee's special fields.

Task 15. Construct examples of types of media useful in special fields.

D. Organize the learning environment.

Task 16. Write plans which place in appropriate sequence (a) anticipated pupil activity, (b) teacher actions, (c) media. Allot necessary time for aspects of the plans.

Task 17. In simulated classrooms, place equipment, media and pupils to facilitate different types of activity.

E. Interact with students.

In each of these five types of situations, interact with pupils effectively by (a) eliciting frequent pupil responses, and (b) reinforcing appropriate responses:

Task 18. Describe to pupils a specific learning task, and elicit responses which indicate a favorable "set" toward the task.

Task 19. Elicit responses which indicate practice in acquiring knowledge.

Task 20. Elicit responses characterizing convergent thinking; or behavior at the comprehension or application levels of the cognitive domain.

Task 21. Elicit responses which characterize divergent thinking, or the analysis of synthesis levels of the cognitive domain.

Task 22. Elicit responses indicating evaluative thinking.

F. Evaluate student progress.

Task 23. Write test items which adequately sample behavior described in previously written objectives.

Task 24. Appraise student performance according to criteria based upon objectives.

Task 25. Confer with pupils individually so as to elicit pupil responses indicating a fair appraisal of the pupil's own performance.

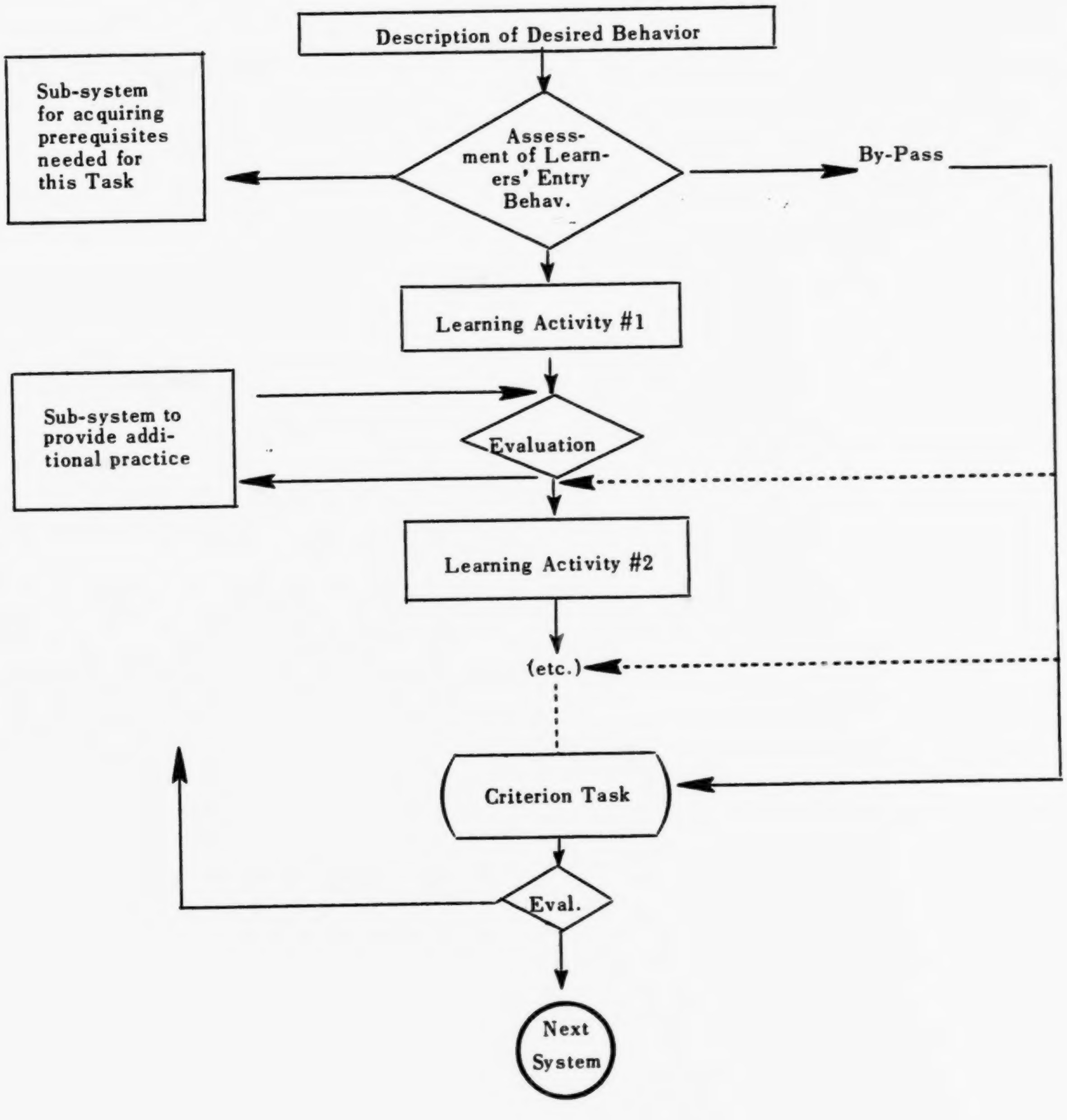
In this demonstration of a new program for teacher education, the object of teaching is learning. Learning is conceived to be a desirable change of behavior. The practical objective of the teacher education project at Washington State University and Bellevue Schools is to have each of the subjects in the experiment demonstrate proficiency in each of the 25 tasks or standards.

The learning system which makes it possible for a subject to demonstrate proficiency consists of five elements:

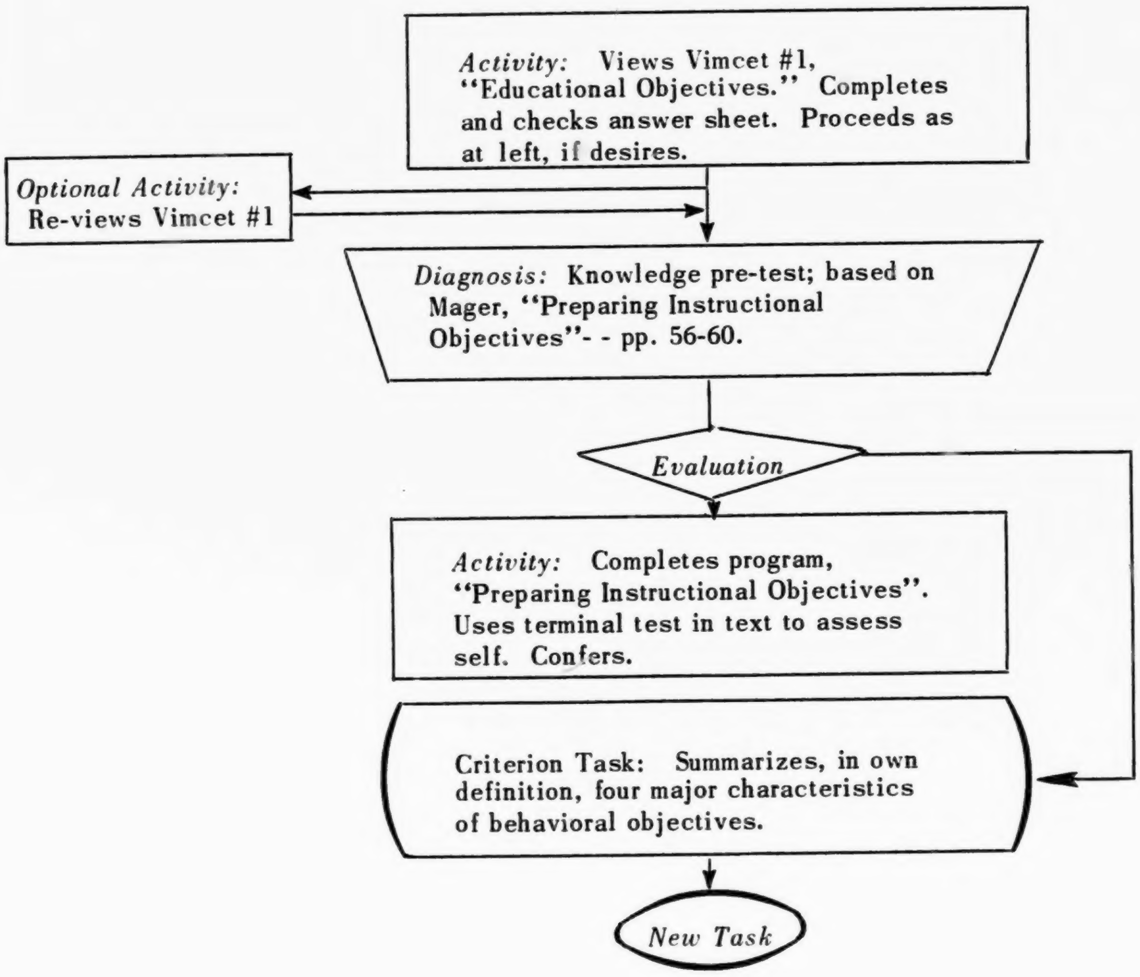
1. A statement and explanation of the desired behavior.
2. A procedure for assessing each learner's entry level in relation to the desired behavior.
3. Alternative sequences of learning activities in which each learner either:
    - (a) successively completes behaviors which constitute essential steps leading to the objective
    - (b) demonstrates an advanced level of entry behavior, and consequently bypasses selected essential steps leading to the objective, or
    - (c) demonstrates a deficiency and meets prerequisites to essential steps leading to the objectives.
4. A criterion task in which the learner demonstrates the behavioral objective in terms of a generalized performance standard.
5. A second criterion task in which the learner demonstrates the behavioral objectives in terms of *situation specific* performance standard.

A flow chart illustrating the interaction of the description of behavioral objectives, alternative instructional systems, and alternative assessment systems appears as Figure 1.

Figure 1
SCHEMATIC DRAWING OF TRAINING SYSTEM


Description of Desired Behavior
Sub-system for acquiring prerequisites needed for this Task
Assessment of Learners' Entry Behav.
By-Pass
Learning Activity #1
Sub-system to provide additional practice
Evaluation
Learning Activity #2
(etc.)
Criterion Task
Eval.
Next System

TASK #1: Define "behavioral objectives," and list characteristics of behavioral objectives.


Activity: Views Vimcet #1, "Educational Objectives." Completes and checks answer sheet. Proceeds as at left, if desires.
Optional Activity: Re-views Vimcet #1
Diagnosis: Knowledge pre-test; based on Mager, "Preparing Instructional Objectives"- - pp. 56-60.
Evaluation
Activity: Completes program, "Preparing Instructional Objectives". Uses terminal test in text to assess self. Confers.
Criterion Task: Summarizes, in own definition, four major characteristics of behavioral objectives.
New Task

DIRECTIONS TO STUDENTS:

1. Outcome desired: c.f. above statement of Task #1
2. Step #1: View the Vimcet filmstrip #1, "Educational Objectives," and respond to same by completing and checking the answer sheet as the film progresses. If you desire, view the filmstrip a second time before taking the pre-test.
3. Step #2: Take a pre-test to help determine your basic knowledge regarding behavioral objectives. This is not a graded test, but simply a device to help determine whether or not you have mastered what you need to know to complete this task.
4. Step #3: Having evaluated your pre-tests, the staff member will indicate to you what is felt to be your next appropriate step, that is Step #4 or #5.
5. Step #4: Complete the program "Preparing Instructional Objectives," by Mager. Assess your understanding of Mager by responding to steps in the program and by completing the tests included. Confer with

staff before proceeding to Step #5. (Suggestion: Students who have been directed to Step #5 without Step #4 may profit much by reading Mager, since this is *the text* in the field.)

6. Step #5: Write a definition of behavioral objectives which includes the four major characteristics of such objectives. Submit your definition to the staff member in charge.

PART II -
THE GROWING EDGE

Chapter IV

A Position Paper on Student Teaching Programs*

INTRODUCTION

FOR the past two years, representatives of the teaching preparation institutions in Michigan have been working together to develop improved programs of teacher education. Laboratory experiences for student teachers have received special attention.

There has been general agreement that developing closer partnerships with public schools offers real hope for greatly strengthening teacher education programs and simultaneously providing improved inservice education opportunities for teachers in the schools.

This paper is an attempt to provide guidelines for such a program. It represents ideas which have been agreed upon in principle by representatives of the various institutions involved. It is recognized, however, that adaptations of the model program must be made by the several institutions to accommodate the unique characteristics and goals of each. It is hoped the proposed program model will stimulate discussion with public school personnel concerning the development of cooperative relationships from which mutual benefits may result.

PROGRAM DESIGN

In designing the structure of a model student teaching program, four principles were considered paramount. They are as follows:

1. *The program for student teachers should provide great flexibility so that strengths and weaknesses of individual students will determine the specific program each will follow.*

One of the frequent criticisms of our present programs of student teaching is our failure to provide for individual differences among students. Regardless of the maturity, academic aptitude, natural ability, or other personal factors involved, all students are marched through the same kind of program for the same length of time, with little attempt made to design a student teaching experience around their particular strengths and weaknesses. We advocate individual attention but often put all students through a lock-step program with little thought to their individual needs.

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An individually designed program can build upon the unique competencies of each student teacher.

2. *The student teacher should be involved in a program designed to provide contact with several teachers and various teaching styles.*

Existing programs of student teaching commonly call for assignment of the prospective teacher to an experienced teacher who is responsible for his "supervision." This usually means the student spends most of his time in the classroom of his supervisor with little chance for exposure to other teaching models.

A well-designed student teaching experience should not be so narrowly structured. Instead, it should provide for contact between the student teacher and several classroom teachers, enabling him to learn from each as he seeks to develop his own teaching style.

3. *The program should be structured to provide many kinds of school experiences for the student teacher in addition to classroom teaching.*

We have always verbalized a desire for students to take part in many activities in the school besides that of teaching a group of thirty youngsters in the normal classroom environment. Usually, however, no formal structure exists to ensure that such opportunities are offered. We have, in fact, frequently scheduled the student full time with a single teacher and thereby limited his opportunities to participate in other activities which have learning value for him. In addition to those experiences which take place within the four walls of a classroom, there are many things of importance for a student teacher to learn about a school and his role in it.

4. *Effective means should be developed to bring practicing teachers and teacher preparation institutions into a true partnership in the design and implementation of teacher education programs.*

Colleges and universities often tend to work in isolation at the task of producing better teachers for the nation's classrooms. Greater involvement of classroom practitioners can add strength to the design and implementation of programs of teacher preparation. Their involvement can facilitate a blend of the practical and the theoretical, helping to keep teacher education programs relevant to the needs of prospective teachers.

A PROPOSED MODEL

Students should spend full time in student teaching and be assigned to school buildings in clusters, with one university faculty member responsible for guiding the experiences of the students in no more than two buildings. These buildings should be in as close proximity as possible, and the total number of students assigned per faculty member should not exceed twenty.

Scheduling clusters of students in this way will permit assigning a college faculty member to work with them full time. Along with a liaison person from the teaching staff of the building, the college faculty member can develop a program for each student on a weekly, or sometimes even daily, basis.

Each student's schedule will include, of course, a good deal of classroom teaching experience but not necessarily under the supervision of a single teacher. For example, the student might be teaching three classes in social studies but under the guidance of three different teachers.

In addition, the student will engage in an organized program–designed especially for him–to learn about the many other facets of a teacher's job outside the formal classroom setting. Included might be such things as (a) working with small groups of individuals in remedial tutoring situations; (b) visiting homes of students and learning about community activities; (c) learning about the administration of a school as viewed by the principal, attendance officer, custodian or groundskeeper; (d) learning about and working with social agencies influential in the community; and (e) becoming familiar with the special services of the school (guidance, remedial reading, school nurse, library, audiovisual aids, and the like).

Student teachers should be assigned by the university instructor in cooperation with the building liaison person designated by the school to a schedule of activities designed to foster the greatest possible learning during the ensuing period. The individualized schedule for each student should be examined weekly or more often and revised as other experiences promise to provide a better learning opportunity for him. Normally, assignment to at least one or two teachers and classes would be continued for several weeks in order to provide an extended experience with the same group of students and permit the development of long-range units of instruction. Other scheduled activities would be chosen after careful assignment of the growth rate and identified needs of the student.

The activities chosen would be selected to help develop not only the professional competencies of the student, but also the personal, social, and academic competencies.

There should be a planned sequence of activities in which student teachers would engage as they progress toward the more complex problems of instruction. In addition to having contact with several teachers and classes to observe instructional styles, a student would have contact and experience with progressively more difficult methods of instruction, e.g., lecture, discussion, unit teaching, problem solving, and inquiry learning. He would move through as many of these as he is capable of and as rapidly as he is able.

The university instructors working in the schools should be constantly alert to opportunities for cooperation between the university and the public schools. They should provide the channel for dialogue between the campus and the school classroom. They can, through close association with the teaching staff, identify teachers for appointment to college planning committees and can also be identified to help with public school problems. It is at this point that the academic specialist plays a vital role in working cooperatively with the school district personnel.

By conducting subject-matter seminars, serving as a consultant on curriculum and other instructional problems, and participating in jointly planned experimental projects of an innovative nature, the academic specialist can exert a direct impact on the quality of the total educational program. Another important function of the academic specialist is to assist the university field instructor in improving the skills of teachers and to aid those student teachers who may be having difficulties relating to their subject-matter field.

BENEFITS OF THE PROPOSED PROGRAM

Each participating institution has unique resources. A student teaching program designed in this manner permits these resources to flow freely among participants. The exchange between the institutions, then, is one of professional services rather than monetary reward. The benefits anticipated under the proposed program are discussed below.

A. The Student

The more capable students will be permitted, encouraged, and expected to reach higher levels of competency than those achieved in the typical program where they often reach a plateau early in the student teaching period and continue through the experience without much additional challenge.

The less capable students will be able to move at a pace more appropriate to their abilities, and while not achieving competence in all phases of teaching, will reach a satisfactory level in the minimum program without the frustration of over expectation.

More student teachers will have contact with the very outstanding teachers in the building. These master teachers can serve as models for several student teachers instead of restricting their contact to "their own" single student teacher.

Students will observe and gain experience with many kinds of problems and activities in a way not possible in the typical problem. These might include:

a. Problems of the new teacher. (The current definition of a "supervising teacher" precludes contact by a student teacher with first-year teachers.)

b. Problems of handling "difficult" student groups. (Assignments are normally voluntary on the supervising teachers' part, and most teachers of "difficult" groups are unwilling to have student teachers assigned to them for their full-time experience in the traditional program.)

c. Instructional techniques for slow learners or academically talented students. (Not many of these groups are available in the typical school, and since a class of this type is something other than "normal," it is usually not chosen as a student teaching station.)

There can be higher morale among student teachers because of an increased opportunity to share common concerns with their peers and to assist each other with their problems.

Students can have a better relationship with the teachers in the building. The proposed program provides for shifting assignments and schedules when advisable, so changes will not be identified as resulting from failure of an individual teacher's part. In addition, the teacher is relieved of the often burdensome responsibility of having the student teacher continuously in his presence.

B. The Teachers and the School

Some classroom teachers are hesitant to accept full responsibility for a student teacher and thus never realize the satisfaction that can come from working with teachers in preparation. The proposed program will enable students and teachers to develop short-term contacts in order to try out the relationship. Those contacts can continue as long as they are productive for the student and the teacher, or can be terminated if this action seems in the best interests of either.

The inservice growth opportunities for the classroom teacher will be greatly increased. University representatives can work directly with the staff to determine their needs and interests as a basis for arranging university participation in inservice activities. The exact nature of this involvement would be developed in a unique manner for each school according to its operating procedures and needs.

The greatly increased instructional resources available in a school building makes possible on occasion, the release of individual teachers from their normal responsibilities. Thus, they can have time to do some of the things which normal duties ordinarily prevent, such as planning and preparing for highly creative teaching; working on curriculum problems or the like; working with individual pupils or groups; and working with parents or with representatives of community service agencies.

The school program can be enhanced and enriched by many activities which the students can well direct as they gain experience with pupils and programs. Additional special talents in arts and crafts, vocal and instrumental music, creative dramatics, athletics, etc., help add to the resources available to the children.

The presence of student teachers in a school can have a healthy psychological effect on experienced teachers. Students often bring with them new ideas, and the very fact that they are around can inspire regular teachers to be more effective than they normally are.

The increased instructional resources would provide for additional aid in the classroom proper and also for remedial services of many kinds for small groups or individuals outside the formal classroom setting.

One other benefit to the school system has long been recognized—the opportunity for the school district to employ excellent beginning teachers. There is little doubt that students who have had a pleasant and successful experience during their student teaching feel a security in the school where these experiences took place. Under the proposed program, the school district would have an opportunity to observe the performance of the student in a variety of situations and could therefore make valid judgments about whether to offer employment on a permanent basis.

C. *The Pupils in the School*

Pupils in the schools have sometimes served without choice as guinea pigs for teacher education programs. The primary reason for any negative reaction from them or their parents is that student teaching programs have not been designed to serve the best interests of the pupils.

The proposed program would make possible the advantage of additional personnel, new ideas, and a stimulating learning climate provided by professionals in preparation.

Pupils would have an increased opportunity for individual attention and individual instruction. This would be more likely to occur than in the usual program because of the flexible schedule for student teachers and the help they would have in planning individualized sessions with specific pupils.

D. *The College or University*

An institution charged with the responsibility of preparing teachers has as its first concern the provision of the best possible program its faculty is able to design for this purpose. It is obvious, then, that if the program leads to better prepared teachers, it is helping the institution to realize its goal.

There are other distinct advantages to the institution of higher education. One is that the proposed program allows for the university faculty member's time to be used more efficiently and effectively. He no longer must spend many hours in his automobile traveling from school to school, but instead can spend his time where he can be most useful, with the students in his charge.

The element of greatly increased time available to his students makes it possible for him to become a much more effective instructor. Now he can work closely with his students on the unique problems of each. Under the traditional system which makes possible only a very limited contact with each student teacher, the university representative has little chance to affect the behavior of the student in a meaningful way.

Developing effective inservice education programs for teachers in cooperating public schools also, in a sense, provides inservice education for the college or university staff members working with these programs. They are forced to stay close to the problems of the classroom teacher and can't become isolated within the ivy-covered walls of a college, divorced from the realities of teaching and teachers. This contact with the teaching world can have a very wholesome effect on what takes place in the preparation program of the prospective teacher.

Chapter V

Innovations in Student Teaching - A Directory of Recent Action*

INTRODUCTION

THIS report is intended to supplement the final report of a *National Survey of Student Teaching Programs* which was conducted under a grant from the U.S. Office of Education (Grant No. OEG 3-7-068182-2635). In conducting this survey, a rather lengthy questionnaire was sent to each of the 1,110 teacher preparing institutions in the United States. Returns were received from 847 (76%) of these institutions. The final report presents general findings of item No. 22 on the questionnaire which asked, "Do you have what you consider to be innovations in your student teaching program? If so, briefly explain." Forty five per cent of the respondents answered this question in the affirmative. The supplemental report presents brief explanations offered by these 385 institutions regarding their respective innovations in student teaching.

In reading this report it should be remembered that what constitutes an innovation for one institution may have been employed for many years at another institution and therefore would not be considered an innovation at the second school. It should also be remembered that the innovations listed in this report deal only with those practices which are associated with student teaching. Without doubt, many of the institutions listed in the publication have additional innovations in their teacher education programs outside of the area of student teaching.

The current report is presented in two major sections. Part I consists of a listing of the student teaching innovations at each institution arranged by state. Part II indicates reference numbers assigned to institutions which reported each type of innovation.

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*This paper was written by James A. Johnson, Northern Illinois University, DeKalb, Illinois.

PART I
STUDENT TEACHING INNOVATIONS BY STATE

ALABAMA

1. University of Alabama, University – Student teaching programs in binational schools in Mexico and Columbia, South America.
2. Jacksonville State University, Jacksonville – Team teaching.
3. Tuskegee Institute, Tuskegee – Student teaching seminars.
4. Alabama College, Montevallo – Videotaping.
5. Auburn University, Auburn – Pre-teaching field experience, extended lab experience, and experience in several situations.
6. University of South Alabama, Mobile – Laboratory experience begins in the freshman year, is culminated with student teaching.

ALASKA

7. Alaska Methodist University, Anchorage – Student teaching experience in Bush schools if desired.

ARIZONA

8. Arizona State University, Tempe – Small experimental elementary apprentice teaching program - small graduate teaching fellowship program.

ARKANSAS

9. Arkansas State University, State University – Special methods courses to students before they student teach in public schools - secondary.
10. Little Rock University, Little Rock – Part-time and full-time operations - assignments for inservice teachers.
11. Arkansas State University, State University – Entire semester - all day, five days a week for elementary student teachers.
12. Harding College, Searcy – A seminar, conducted during the nine weeks attempts to keep contact and allow for group expression of common problems.

CALIFORNIA

13. La Verne College, La Verne – Team teaching and modular scheduling.
14. San Francisco State College, San Francisco – Team teaching.
15. Pepperdine College, Los Angeles – Elementary special student teaching ten weeks full-time followed by internship and special project for teachers in disadvantaged areas.

CALIFORNIA (continued)

16. Stanislaus State College, Turlock – Two student teachers in same classroom - different and/or same hours.
17. Immaculate Heart College, Los Angeles – Internship program.
18. Loyola University of Los Angeles, Los Angeles – Videotaping and team teaching.
19. Humboldt State College, Arcata – Elementary student is in a classroom each quarter taking professional education courses.
20. San Fernando Valley State College, Northridge – Student teaching and second methods course concurrently - internship program.
21. San Jose State College, San Jose – Micro-teaching - tutorial program.
22. University of Southern California, Los Angeles – Teacher corps (urban and rural) "immersion" into community - T-A work (assistant, not aide) leading into student teaching responsibilities (remuneration for T-A work but not for student teaching).
23. California State College at Los Angeles, Los Angeles – Micro-teaching.
24. Chico State College, Chico – Elementary program: teach every basic subject on different levels and schools on a two week basis with last month teaching full time.
25. California Lutheran College, Thousand Oaks – Videotaping.
26. Sonoma State College, Rohnert Park – Student advisory council - curriculum classes have laboratory sessions related to student teaching assignments.
27. University of San Diego College for Men, San Diego – Daily student log.
28. California Western University, San Diego – One full quarter of time (8–5) student teaching - use of videotaping.
29. San Francisco College for Women, San Francisco – Seminar conducted concurrently with student teaching.
30. Chapman College, Orange – Intern program wherein district provides full time supervision for each 10–12 interns - supervisor on college staff and integrates theory and practice.

COLORADO

31. Temple Buell College, Denver – Students go three half days and two full days each week.
32. Adams State College, Alamosa – Videotaping.
33. University of Denver, Denver – Teacher aide in addition to student teaching.

COLORADO (continued)

34. University of Colorado, Boulder – Off-campus emphasis in cooperation with local school district.
35. Colorado State College, Greeley – Internship program.
36. The Colorado College, Colorado Springs – Each secondary student teacher is supervised by a specialist in his academic field. All student teachers attend a weekly colloquium on liberal education and public school teaching. Videotaping.

CONNECTICUT

37. Hartford Seminary Foundation, Hartford – Special curricula for student teachers.
38. University of Bridgeport, Bridgeport – Each field associate must have had two student teachers before appointment and be recommended by the principal of his school and by college of education personnel. He must be willing to take at least two student teachers every three years.
39. Fairfield University, Fairfield – Group process principles are followed.
40. Central Connecticut State College, New Britain – Plant school, Farmington-Newington Project, outdoor education experience, Hartford inner city, public educational services for children, Children's Museum.
41. Eastern Connecticut State College, Willimantic – Early childhood program.
42. Yale University, New Haven – Student teaching done in conjunction with graduate study in subject field.
43. Albertus Magnus College, New Haven – The director instructs student teachers in a seminar one period a week, first and second semester.
44. Annhurst College, Woodstock – Student teaching done in junior year.
45. Southern Connecticut State College, New Haven – Participate one hour a week during the junior year in addition to the eight week full-time student teaching period (24).

DISTRICT OF COLUMBIA

46. Howard University, Washington – Elementary: five weeks observation in each elementary grade - nine weeks of student teaching in one grade.
47. District of Columbia Teachers College, Washington – Integrated methods and psychology for elementary majors and professional semester for secondary.

DISTRICT OF COLUMBIA (continued)

48. Gallaudet College Graduate School, Washington – Functions of clinical professors who both teach graduate courses and supervise.
49. The American University, Washington – Centers set aside for part of the student teachers.

FLORIDA

50. University of Miami, Coral Gables – Pairing two student teachers with one experienced teacher in "culturally disadvantaged" schools.
51. University of South Florida, Tampa – Multiple assignments to schools rather than to individual supervisors.
52. University of Florida, Gainesville – One resident coordinator student teaching center - student teachers and directing teachers are trained the quarter before student teaching in verbal interaction analysis.
53. Barry College, Miami – Interns begin full time teaching in November preceded by full week in September and nine weeks of part time before November experience begins.
54. Florida Presbyterian College, St. Petersburg – Directed pre-professional teaching experiences.
55. University of Tampa, Tampa – All faculty members in Education Department supervise student teachers.
56. Rollins College, Winter Park – 36 hours pre-student teaching observation in conjunction with methods courses for undergraduates only.
57. Florida Southern College, Lakeland – Consistent working cooperation with directing teachers and principals and the selection of students to participate in student teaching.

GEORGIA

58. Emory University, Atlanta – Junior experience for elementary student teaching - use of videotaping.
59. Georgia Southern College, Statesboro – Use of teaching field contact persons; center leader and team leader approach, etc.
60. Albany State College, Albany – Secondary: team teaching and television teaching.
61. Savannah State College, Savannah – Weekly seminars for which student teachers return to campus; Negro student teachers in predominately white schools; spend orientation period with assigned supervising teacher prior to student teaching.

IDAHO

62. Northwest Nazarene College, Nampa – Professional term - videotaping - visual materials used in methods class.
63. The College of Idaho, Caldwell – Unified program of general methods course content, observation period, and student teaching.

ILLINOIS

64. Southern Illinois University, Carbondale – Full professional quarter of student teaching - pre-lab experiences.
65. Illinois Wesleyan University, Bloomington – Junior participation with teacher who will be the student's cooperating teacher when teaching.
66. Western Illinois University, Macomb – Resident coordinators in off-campus centers.
67. Northern Illinois University, DeKalb – Micro-teaching; sophomore, junior and senior lab experiences; use of portable T.V. equipment with student teacher; block program; public school - university jointly appointed college supervisors; outdoor education lab experiences.
68. Greenville College, Greenville – Opening week of school spent with the public school teacher followed by five weeks of classes, then eight weeks spent with the public school teacher.
69. National College of Education, Evanston – Professional seminar.
70. North Central College, Naperville – Closed circuit television.
71. The University of Chicago, Chicago – Student teaching as part of practicum.
72. Northeastern Illinois State College, Chicago – Micro-teaching prior to student teaching.
73. North Park College and Theological Seminary, Chicago – Field work prior to student teaching.
74. Eastern Illinois University, Charleston – Micro-teaching - pre-student teaching labs.
75. Principia College, Elsah – Department chairmen help students in all areas.
76. Rockford College, Rockford – Integrated "teaching semester," team taught by members of department with various field trips sandwiched around student teaching.
77. Knox College, Galesburg – Videotaping.
78. Millikin University, Decatur – Pre-student teaching contact in the classroom before the block placement.

ILLINOIS (continued)

79. Barat College, Lake Forest – 20 hours of observation in a public school.
80. Augustana College, Rock Island – Full day student teaching-pass or fail grading for student teaching - students on Teacher Education Committee.
81. Bradley University, Peoria – Pre-student teaching lab experiences.

INDIANA

82. Anderson College, Anderson – Student exchange - videotaping - team teaching - work study program.
83. Earlham College, Richmond – Working in inner city schools and making urban studies.
84. Purdue University, Lafayette – Decentralized supervision; public school supervision of beginning teachers.
85. University of Notre Dame, Notre Dame – Field supervisors and staff associates.
86. DePauw University, Greencastle – Use of television in conferences.
87. Franklin College of Indiana, Franklin – Block program involving observation in classes where students will ultimately student teach.
88. Indiana State University, Terre Haute – Videotaping.
89. Goshen College, Goshen – Elementary - student teaching semester for professional workshops and teaching.
90. Valparaiso University, Valparaiso – Six-nine-three week semester plan - courses, student teaching, seminar.
91. Saint Mary-of-the-Woods College, Saint Mary-of-the-Woods – Seminar for student teachers allows for a kind of "independent study" approach.
92. Hanover College, Hanover – Professional semester during which the student has no courses except those in professional education and student teaching.
93. Butler University, Indianapolis – Professional semester of secondary education.
94. St. Mary's College, Notre Dame – Observation in junior year - pre-student teaching experiences.
95. Manchester College, North Manchester – Use of videotaping.

IOWA

96. University of Iowa, Iowa City – Professional semester in education.

IOWA (continued)

97. Graceland College, Lamoni – Attempt to individualize the student teaching experience.
98. Iowa State University, Ames – Elementary: One-6 week experience in lower elementary, one-6 week experience in upper elementary (where possible in opposing socio-economic levels).
99. Northwestern College, Orange City – Seminar of one-half day, second week in which cooperating teachers come to campus for discussion, instruction, questions answered.
100. University of Northern Iowa, Cedar Falls – Micro-teaching, extensive interview procedure, videotaping of student teaching experience in public schools.
101. Central College, Pella – Professional term - micro-teaching - videotape supervision of student teaching.
102. Briar Cliff College, Sioux City – Videotaping on location.
103. Loras College, Dubuque – Student teachers have been tape recording elementary classes for over four years.
104. Clarke College, Dubuque – September experiences - two weeks in elementary public schools before returning to the college campus - tutoring.

KANSAS

105. Friends University, Wichita – Micro-teaching - videotaping - interaction analysis.
106. Marymount College, Salina – Videotaping.
107. Sacred Heart College, Wichita – Simulated laboratory for pre-student teaching.
108. Saint Mary College, Leavenworth – Student teaching with honors.
109. Washburn University, Topeka – Weekly seminars with college and Menninger Foundation Staff Members.
110. Kansas State University, Manhattan – September observation experience (attend public school teacher meeting and first week of classes).
111. Kansas State College of Pittsburg, Pittsburg – Use of closed circuit T.V. and videotaping.
112. Mt. St. Scholastica College, Atchison – Videotaping and combined education department with St. Benedict's College.
113. Wichita State University, Wichita – Professional semester–secondary. Block classes and participation in schools seven weeks prior to actual student teaching. Subject matter specialists supervise student teachers.

KENTUCKY

114. Eastern Kentucky University, Richmond – Team teaching.
115. Nazareth College, Nazareth – Interns (four to one supervisor) who have complete charge of classroom for entire school year.
116. Morehead State University, Morehead – Professional semester with rotation for student teaching experience.
117. Catherine Spalding College, Louisville – Intern program in one school for priests - teachers.
118. Villa Madonna College, Covington – Supervision of student teachers by both members of department of education and academic departments.
119. Berea College, Berea – Individual assignments.
120. Asbury College, Wilmore – O.E.O. - Head Start program on campus.

LOUISIANA

121. Northwestern State College, Natchitoches – Observation-participation at the secondary level. An observation-participation program at the elementary level has been conducted for a number of years.
122. Northeast Louisiana State College, Monroe – Videotaping - micro-teaching - pre-lab observations.
123. Nicholls State College, Thibodaux – Internship program at the elementary level.
124. Xavier University, New Orleans – Student teachers become a part of these programs or pilot studies: non-graded, department program in the 6, 7, & 8 grades, etc. All such programs are cooperatively worked out between college program and regular school programs.
125. Louisiana Polytechnic Institute, Ruston – Do not give A, B, C marks in professional lab experience.
126. Our Lady of Holy Cross College, New Orleans – Prior to the semester of student teaching, these students are required to do 36 hours of teacher aide work. (no credit)
127. St. May's Dominican College, New Orleans – Longer period of observation and participation; videotaping of student teachers at work; micro-teaching.
128. Southern University, Baton Rouge – Program designed for the training of junior high school teachers.

MARYLAND

129. University of Maryland, College Park – Teacher education centers - coordinated by a full-time joint appointee of university and public schools.
130. Hood College, Frederick – Junior aide program.
131. The Maryland Institute, College of Art, Baltimore – Graduate program in cooperation with Hillcrest Children's Center, Washington, D.C., leading to title of Art Therapist in Special Education.
132. Frostburg State College, Frostburg – An increased interest and sharing of training both on campus and in the field of practice by the content instructors of the majors in which the students are working. Notably to date in English, Geography, Mathematics, Physical Education, Art, and Music.
133. Peabody Conservatory, Baltimore – Student teaching is spread over a two year period.
134. Columbia Union College, Takoma Park – Some work in boarding schools within 200 mile radius.

MASSACHUSETTS

135. University of Massachusetts, Amherst – A pilot program with fifteen weeks of student teaching(elementary).
136. State College of Framingham, Framingham – Limited number of students in inner-city schools.
137. Salem State College, Salem – Block or group assignments to foster team teaching and to provide more concentrated supervision.
138. Boston College, Chestnut Hill – Some centers; excellent college supervisor-student teacher ratio.
139. State College at Worcester, Worcester – Cooperating teacher's conferences for teachers, department chairmen, supervisors, and principals.
140. State College at Bridgewater, Bridgewater – Professional semester, 16 weeks - half day at laboratory school and half day integrated with methods classes.
141. Northeastern University, Boston – About 25% of students have paid positions as "teacher aides."
142. Eastern Nazarene College, Wallaston – A required 180 hours of observation and serving as teacher aide before student teaching.
143. Boston University, Boston – Centers established in elementary and secondary education. 10–12 student teachers in one school with a supervisor out two and one-half days a week.

MASSACHUSETTS (continued)

144. Stonehill College, North Easton – Clinical professor approach.
145. Suffolk University, Boston – Summer program - experimented with reimbursing cooperating teachers in Newton school system. Students pay extra $50.00, Suffolk University matched with $50.00, and Newton matched the $100.00, so cooperating teacher received $200.00.
146. College of Our Lady of the Elms, Chicopee – Students do this work in their home cities during the first eight weeks of public school - September and October.
147. Gordon College, Wenham – Methods course taught in a block with two mornings per week observation in the public school classroom.
148. Cardinal Cushing College, Brookline – Prerequisite - 50 hours work with children in age group plan to teach.
149. Lesley College, Cambridge – Student teaching centers in public school systems.
150. Massachusetts College of Art, Boston – Student teaching center concept with joint responsibility.
151. Merrimack College, North Andover – Inservice teachers conduct courses in special methods.
152. Atlantic Union College, Lancaster – Pre-student teaching laboratory requirements.

MICHIGAN

153. Nazareth College, Kalazamoo – New program to be aimed at inner-city teaching.
154. Aquinas College, Grand Rapids – Block of elementary professional education.
155. Andrews University, Berrien Springs – Closed circuit T. V. for evaluation.
156. Spring Arbor College, Spring Arbor – Four colleges and universities place student teachers in Twin Valley Living and Learning Center.
157. Wayne State University, Detroit – Elementary student teaching centers - special student teaching center for inner-city teacher preparation - student teaching in Canada - student teaching in Job Corps center.
158. Hope College, Holland – Five student teachers in a whole year "teacher associate" program in Saugatuck. Three are expecting to participate in the Philadelphia program of Great Lakes College Association.

MICHIGAN (continued)

159. Michigan State University, East Lansing – Elementary intern program, clustering arrangement leading to more individualized instruction.
160. Alma College, Alma – Experimenting with all day student teaching in elementary schools for one term. Cooperating program in ghetto area teaching in Detroit with Detroit P.S. and Wayne State University (1967 – 68).
161. University of Detroit, Detroit – Team teaching in the secondary level (three and four students in a team).
162. Adrian College, Adrian – Professional semester.
163. Kalazamoo College, Kalazamoo – An inner-city program.

MINNESOTA

165. College of St. Thomas, St. Paul – Internship.
166. Moorhead State College, Moorhead – IBM card application. One-half day a week joint meeting with supervising teacher, college supervisor, and member of major academic department.
167. State College, St. Cloud – Program controlled by a council which is a non-profit tax exempt corporation with a representative from each school district.
168. St. Olaf College, Northfield – A possible outgrowth of a sophomore internship program which won an AACTE distinguished award for excellence in teacher education, 1968.
169. Carleton College, Northfield – ACM urban semester in Chicago - some videotaping of student teaching.
170. College of St. Scholastica, Duluth – Student teaching in an individualized program.
171. Concordia College, St. Paul – Two experiences - one-half day for five weeks for juniors and one-half quarter full days for seniors.
172. Gustavus Adolphus College, St. Peter – Professional semester of 15 weeks (combines methods and Education Psychology in seven weeks, student teach in other eight weeks).
173. Hamline University, St. Paul – Early assignment - spring before fall term work.
174. Mankato State College, Mankato – Seminar in student teaching - weekly on-campus seminar - one day each college quarter.

MISSISSIPPI

175. Tougaloo College, Tougaloo – Placement of student teachers only in schools located near the college.
176. William Carey College, Hattiesburg – Cooperating teachers are invited to a coffee hour during American Education Week. A free scholarship given - good for one course - to each cooperating teacher and supervising principal.
177. Mississippi State College for Women, Columbus – September experience and pre-student teaching lab experience.
178. Jackson State College, Jackson – Regular school term inservice growth program for supervising teachers, including participation in national conferences, observational tours.

MISSOURI

179. Evangel College, Springfield – Student teaching coordinator appointed by the Springfield School System to supervise and coordinate the program for the three colleges in Springfield.
180. Webster College, St. Louis – Departmental involvement in methods and student teaching; involvement of students in mentods, curriculum development and student teaching from sophomore year on.
181. Harris Teachers College, St. Louis – Student teachers spend two weeks at each grade level thru grade eight; also, are assigned to two schools in contrasting socio-economic areas of the city for ten weeks each.
182. Marrillac College, St. Louis – Student teaching takes place during a professional semester, the first six weeks of which are devoted to special methods courses which are concluded after ten weeks of student teaching.
183. University of Missouri, Columbia – Videotaping - each student teacher doing at least one lesson.
184. Central Missouri State College, Warrensburg – Inner city program - pre-student teaching experience, followed by special student teaching experience in inner city schools. Use videotaping extensively for those students teaching in lab school.
185. Tarkio College, Tarkio – Student teaching block of (1) principles and planning in teaching and (2) student teaching; each full time for one-half term each.
186. Rockhurst College, Kansas City – 15 area liberal arts colleges are running a full semester inner-city cooperating student teaching program.

MONTANA

187. Eastern Montana College, Billings – Videotaping of student teachers and future student teachers, to a limited degree.
188. Carroll College, Helena – Professional semester.
189. Western Montana College, Dillon – Secondary student teachers out eight weeks, then return for 33 hour workshop.
190. Montana State University, Bozeman – Videotaping.
191. Rocky Mountain College, Billings – Are experimenting with most innovations in professional literature.

NEBRASKA

192. Union College, Lincoln – Pre-semester student teachers report for duty at the same time as inservice teachers.
193. Omaha University, Omaha – Videotaping.
194. Chadron State College, Chadron – Micro-teaching prior to student teaching experience.
195. University of Nebraska, Lincoln – Television and instant playback for the purpose of analyzing student teaching and employing interaction analysis and one or two other observational systems.
196. Concordia Teachers College, Seward – Use elementary schools throughout the Mid-west (Ft. Wayne, Indiana, Milwaukee, St. Louis, Denver, Tucscon, Phoenix, Ponca City, Oklahoma, etc.) Secondary school in Detroit, Cleveland, St. Louis, Denver, etc.

NEW HAMPSHIRE

197. University of New Hampshire, Durham – Student teachers placed in "tandem teams" with interaction analysis training.
198. St. Anselm's College, Manchester – Placing three to five students with one master teacher - one class.

NEW JERSEY

199. Bloomfield College, Bloomfield – Pre-student teaching conferences involving cooperating teacher and student teacher and supervising teacher.
200. Glassboro State College, Glassboro – Inner-city semester with the disadvantaged.
201. Jersey City State College, Jersey City – Professional semester.
202. Westminster Choir College, Princeton – Students do their elementary practicum during sophomore year.

NEW JERSEY (continued)

203. Upsala College, East Orange – In-course use of simulated instructional sessions and videotaping prior to student teaching.
204. Rider College, Trenton – Methods instructors serve as supervisors.

NEW MEXICO

205. Eastern New Mexico University, Portales – Upgraded elementary team teaching.
206. University of New Mexico, Albuquerque – Modular scheduling, team teaching supervising, lab experiences for each methods course, satellite lab schools.
207. New Mexico State University, University Park – Micro-teaching and videotaping.

NEW YORK

208. Mills College of Education, New York – Two student teaching experiences in junior and senior year - observation in child care center.
209. La Mayne College, Syracuse – Block program - methods prior to student teaching.
210. St. Joseph's College for Women, Brooklyn – A child study center, K-primary.
211. Mary Rogers College, Maryknoll – Residency for some student teachers with the cooperating faculty of practice school.
212. City College, New York – Placement of elementary student teachers in Special Service School in New York City in which the students receive $2.50 per hour.
213. Medaille College, Buffalo – During third year, students work with a teacher 30 clock hours each tri-mester, three total credit hours.
214. St. Lawrence University, Canton – "Professional semester" for teachers during senior year. No academic campus courses taken. Professional courses only plus eight weeks full-time teaching in public schools.
215. Brentwood College, Brentwood – Each student records a lesson in her self-evaluation. Weekly seminars in an elementary school with demonstrations by experienced teachers.
216. State University College at Fredonia, Fredonia – Clinical analysis/building approach in addition to conventional one student teacher assigned to one classroom teacher approach.

NEW YORK (continued)

217. Skidmore College, Saratoga Springs – Elementary - full semester block program, integrating theory and practice.
218. State University of New York, College at Cortland, Cortland – Participation in Philadelphia, Pennsylvania program.
219. D'Youville College, Buffalo – Team supervision to begin next year.
220. Pratt College, Brooklyn – Outstanding public school teachers and administrators are hired as teaching assistants to the college to aid in planning program and supervising students.
221. State University of New York at Geneseo, Geneseo – All supervisors teach methods courses as well as supervise.
222. Cornell University, Ithaca – Student teachers assigned to non-graded teams.
223. Marist College, Poughkeepsie – Intensive theory and practice teaching confined to one semester.
224. Houghton College, Houghton – All fall placements begin with opening faculty meeting.
225. Fordham University, New York – Student teaching is part of senior course in learning teaching methods; junior year course in urban child, including field work and observation.
226. State University College at Potsdam, Potsdam – Paired groups - same system, different levels.
227. State University College at Oswego, Oswego – Teachers and student teachers assigned in teams making possible peer supervision and clinical analysis by other groups with subsequent presentation of data to the one who taught the lesson.
228. The King's College, Briarcliff Manor – Two eight-week accelerated professional courses to free last eight weeks for full time secondary student teaching.
229. The University of Rochester, Rochester – Block program - instructional team (University faculty) highly recommended.
230. Syracuse University, Syracuse – Research study in developing supervisory skills of cooperating teachers.
231. State University College, Brockport – Simulation in student teaching.
232. New York University, New York – "Apprentice teachers" receive pay for assisting teacher while fulfilling student teaching requirements. They are employees of Department of Education as well as students of the University.
233. Elmira College, Elmira – Team taught professional sequence cored by experience program.

NEW YORK (continued)

234. State University of New York at Albany, Albany – Center concept - professor of student teaching in residence - teaches classes.
235. Queens College of the City University of New York, Flushing – Special lab schools - other special programs for training for urban experience.
236. Roberts Wesleyan College, North Chili – 11 week period - two weeks of seminars.

NORTH CAROLINA

237. Western Carolina University, Cullowhee – Student teaching centers.
238. North Carolina University, Raleigh – Making a study at the community in which student teaching is done as a means of planning the instructional program in terms of local situation and need.
239. Pembroke State College, Pembroke – Students attend classes eight weeks and student teach full-time eight weeks.
240. Salem College, Winston-Salem – Incorporation of all "courses" into sequential lab workshop discussion types. An academic major for elementary as well as secondary and many others.
241. University of North Carolina, Chapel Hill – Training center using three public schools.
242. Greensboro College, Greensboro – Pre-teaching at beginning of public school in student's home town. Education field work.
243. Saint Augustine's College, Raleigh – More involvement with subject matter, professors, and educational technology.
244. Lenoir Rhyne College, Hickory – College supervisor videotapes actual classroom episodes in public schools, using portable apparatus. Student teacher views playback, criticizes, etc.

NORTH DAKOTA

245. Mary College, Bismarck – Seminar each week on "art ideas" things tried - how to get "variations" and "take-offs".
246. University of North Dakota, Grand Forks – Research and experimentation in student teaching in operation in several areas.

OHIO

247. College of Mount St Joseph, Mount St. Joseph – Advisory committee to Education Department (one superintendent, three principals, three cooperating teachers, two student teachers) to

OHIO (continued)

advise on student teaching and general education program. Use of movie camera and tape recorder.

248. Walsh College, Canton – Student teaching is done full day for eight weeks at beginning of senior year, spring semester.
249. Central State University, Wilberforce – Participation in Philadelphia, Pennsylvania Urban Student Teaching Laboratory.
250. Hiram College, Hiram – (1) Internship in a school-student relationship from time entering T. E. program to beginning of student teaching. (2) Substantial time allowance in load for faculty acting as college supervisor (student teaching = two five-hour courses in our load formula).
251. University of Cincinnati, Cincinnati – Provision for "non-standard" students who have degrees but no work in education.
252. University of Toledo, Toledo – Student teaching centers where 12–18 are placed in one school.
253. Case-Western Reserve University, Cleveland – Earlier field experience, beginning at sophomore level and continuing thru the student teaching experience with same cooperating teacher.
254. Miami University, Oxford – Videotaping student teachers in public schools.
255. Muskingum College, New Concord – The month of January may be spent in a metropolitan area school.
256. John Carroll University, Cleveland – Individual matching through personal contacts of student teacher with cooperating teacher.
257. Capital University, Columbus – Educational semester with full day student teaching.
258. Xavier University, Cincinnati – Videotaping.
259. Mary Manse College, Toledo – Changed marks to Satisfactory - Unsatisfactory.
260. Baldwin-Wallace College, Berea – Added pre-student teaching school visitation and lab experience to existing program.
261. Otterbein College, Westerville – Professional semester - first eight weeks, three education courses and second eight weeks, full time in public schools.
262. Ohio Northern University, Ada – Possible dual experience - primary and elementary.
263. Oberlin College, Oberlin – Elementary - two eight-week blocks in middle of each semester.
264. Youngstown State University, Youngstown – One semester of observation at the beginning of the junior year - this also includes participation.

OHIO (continued)

265. Ashland College, Ashland – Students assigned in teams of two per classroom; CCTV used for part of evaluation.
266. University of Dayton, Dayton – Videotaping and micro-teaching.
267. Saint John College, Cleveland – Laboratory experiences beginning in freshman year and culminating in student teaching in the senior year.
268. Ohio University, Athens – Students are assigned in team teaching and non-graded situations.

OKLAHOMA

269. Northwestern State College, Alva – Videotaping.
270. University of Oklahoma, Norman – Human relation workshop concerning disadvantaged and University children.
271. University of Tulsa, Tulsa – Videotaping and micro-teaching.
272. Southwestern State College, Weatherford – Student teaching eight weeks - four times a year.
273. Oklahoma State University, Stillwater – Two week observation at the start of the school year.

OREGON

274. University of Oregon, Eugene – Clinical supervision, internships, block experiences.
275. Pacific University, Forest Grove – Micro-teaching prior to actual teaching.
276. Southern Oregon College, Ashland – Clinical supervision in elementary first quarter.
277. Linfield College, McMinnville – Interns out in the schools. Using videotaping and supervision by committees.
278. Portland State College, Portland – Cooperative clinical professor assignments with school districts.
279. Lewis and Clark College, Portland – Videotaping.
280. University of Portland, Portland – Professional semester.
281. Mt. Angel College, Mt. Angel – Sequential lab experience leading up to student teaching.

PENNSYLVANIA

282. Millersville State College, Millersville – Length of time in student teaching varied according to accomplishment.
283. Shippensburg State College, Shippensburg – Educational television.

PENNSYLVANIA (continued)

284. College Miselicordia, Dallas – Booklet filled out by student teacher, biographical sketch - hopes for student teaching sent to cooperating teacher.
285. West Chester State College, West Chester – Team supervision.
286. University of Pittsburgh, Pittsburgh – Four varied programs are involved - each with innovations.
287. Wilson College, Chambersburg – Team teaching and videotaping.
288. Bucknell University, Louisburg – A research oriented approach emphasizing development of concepts in secondary education.
289. Temple University, Philadelphia – Center approach with resident supervisor - joint supervision with City of Philadelphia - staff development program for principals, cooperating teachers.
290. Muhlenberg College, Allentown – Each elementary student teacher has two assignments; half semester in primary; half in intermediate.
291. Allegheny College, Meadville – Mandatory five-year involving full pay, full year internship (after student teaching) and MA degree.
292. The Pennsylvania State University, University Park – Pre-student teaching experiences and September experience for all teachers.
293. University of Scranton, Scranton – Observation through structured observation forms - very flexible.
294. Holy Family College, Philadelphia – Pre-student teaching observations and seminars.
295. Villamor University, Villamor – Full semester - student follows school schedule.
296. Messiah College, Grantham – Methods work coordinated with student teaching.
297. Slippery Rock State College, Slippery Rock – Varied experiences for student teachers.
298. Rosemont College, Rosemond – Professional semester.
299. Drexel Institute of Technology, Philadelphia – Cooperative education program - send students to teach in local schools and they receive credit for student teaching.
300. Washington and Jefferson College, Washington – Intern program the first semester of senior year; student teaching the second semester.
301. Waynesbury College, Waynesbury – Professional semester for liberal arts majors.
302. Lebanon Valley College, Annville – Follow-up on first year teachers.

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PENNSYLVANIA (continued)

303. Wilkes College, Wilkes-Barre – Professional semester - two courses in education taken previously to the professional semester.
304. Dickinson College, Carlisle – Professional semester - field practicum in Educational Psychology during pre-student teaching.
305. Carnegie Mellon University, Pittsburgh – Professional semester.
306. Marywood College, Scranton – Supervision involving classroom interaction analysis technique - establishment of specific centers at a distance from the college.

PUERTO RICO

307. Catholic University of Puerto Rico, Ponce – A program with Department of Public Instruction wherein sophomores, juniors, and seniors from the University spend six hours a week in public schools with teachers.
308. University of Puerto Rico, Rio Piedras –Micro-teaching.

RHODE ISLAND

309. Brown University, Providence – Fellowship programs federally funded during which the student receives benefits much as the Academic Year Institute science program.
310. Rhode Island College, Providence – Area schools and coordinating supervisors for area schools and area concentration.
311. Providence College, Providence –Micro-teaching.
312. Bryant College, Providence – Professional semester.

SOUTH CAROLINA

313. Bob Jones University, Greenville – Videotaping.
314. Clemson University, Clemson – Team teaching.
315. Allen University, Columbia – Teacher-helper program in elementary education.
316. South Carolina State College, Orangeburg – Integrative seminars held prior to and after student teaching.
317. Lander College, Greenwood – Block scheduling of program during year in which student teaching takes place.
318. Claflin College, Orangeburg – Block system.
319. Benedict College, Columbia – Blocking student teaching for last semester of senior year.

SOUTH DAKOTA

320. Northern State College, Aberdeen – Videotaping.
321. Dakota Wesleyan University, Mitchell – Planned team approach in classroom setting.
322. South Dakota State University, Brookings – Team teaching - ETV - independent study.
323. General Beadle State College, Madison – Team teaching.

TENNESSEE

324. Covenant College, Chattanooga – Weekly seminar.
325. Bethel College, McKenzie – Team teaching.
326. Austin Peay State University, Clarksville – Seminar prior to student teaching - use of interaction analysis.
327. George Peabody College, Nashville – Professional seminar.
328. University of Tennessee, Knoxville – Interaction analysis – videotaping - simulated experiences to some extent.
329. Siena College, Memphis – Professional semester.
330. Carson-Newman College, Jefferson City – Block program - videotaping for student teaching.
331. Tasculum College, Greenville – One-half semester full time in public school; first one-half in a block education course.
332. Tennessee Technological University, Cookeville – Prepare teachers of rural disadvantaged; humanistic supervision.
333. Milligan College, Milligan College – Professional semester.
334. Lambuth College, Jackson – In elementary reading course, students are assigned teacher in public school during semester preceding student teaching. This student continues under same teacher the following semester for student teaching, which in effect is a year of internship.
335. Christian Brothers College, Memphis – All student teaching is done in summer session.
336. Union University, Jackson – Pre-requisite courses are offered during the first half of the semester taught by student teacher.

TEXAS

337. Texas A & I University, Kingsville – Workshop for cooperating teachers.
338. The University of Texas, Austin – Team teaching - Latin American Education Program.

TEXAS (continued)

339. Midwestern University, Wichita Falls – Professional semester.
340. Austin College, Sherman – Master of Arts in Teaching.
341. St. Edward's University, Austin – Use of interaction analysis - micro-teaching on limited scale.
342. Texas Southern University, Houston – Educational Media Institute.
343. Paul Quinn College, Waco – Professional semester.
344. North Texas State University, Denton – Professional semester of 15 hours of integrated study (elementary) - reverse block of eight weeks of student teaching and eight weeks of campus study (secondary).
345. Sul Ross State College, Alpine – No grade is given, all requirements must be completed prior to credit.
346. Stephen F. Austin State College, Nacogdoches – Student teaching seminar immediately following student teaching.
347. Texas A & M University, College Station – Full time nine weeks plus six weeks block on-campus courses for a total of 15 education credits - integrated curriculum in professional senior semester.

UTAH

348. Weber State College, Ogden – Intern program.
349. College of Southern Utah, Cedar City – Secondary supervisors from educational department.
350. Utah State University, Logan – Videotaping.
351. Brigham Young University, Provo – Micro-teaching - team teaching.
352. University of Utah, Salt Lake City – Student teaching centers in selected schools - teaching assistantships preceding student teaching.

VERMONT

353. University of Vermont, Burlington – Internship.
354. Johnson State College, Johnson – Team teaching - videotaping.
355. Norwich University, Northfield – Use of non-education department faculty to supervise and evaluate student teachers.

VIRGINIA

356. Virginia Union University, Richmond – Cadet teacher exchange program with mid-western college.
357. Radford College, Radford – In secondary school assignment in three subjects, three grade levels, experience with three supervising teachers.
358. Eastern Mennonite College, Harrisonburg – Junior year pre-student teaching experience.
359. University of Virginia, Charlottesville – A pre-student teaching course - micro-teaching, analytic methods of studying teaching and learning behaviors.
360. Virginia State College, Petersburg – Publications, seminars, and September experiences.

WASHINGTON

361. St. Martin's College, Olympia - Interaction analysis.
362. Pacific Lutheran University, Tacoma – Alternate levels available; elementary candidates in secondary, and secondary candidates in elementary.
363. Eastern Washington State College, Cheney – Voluntary practicum in supervision of student teaching. Slower developing students may take an extended experience.
364. University of Washington, Seattle – Students spend entire year in school.
365. Fort Wright College, Spokane – Use of slide camera to record student reaction during teaching act.
366. Whitman College, Walla Walla – Interaction analysis - micro-teaching.
367. Central Washington State College, Ellensburg – Videotaping.

WEST VIRGINIA

368. Glenville State College, Glenville – Student teaching packet.
369. Davis and Elkins College, Elkins – Student teaching block.
370. Marshall University, Houtington – Utilization of multiple assignments to experiment with an individualized instructional approach.
371. West Virginia University, Morgantown – Micro-teaching and interaction analysis.

WEST VIRGINIA (continued)

372. West Virginia State College, Institute – Require candidates without teaching experience who are approved for summer session student teaching to complete 50–60 clock hours work as teacher aide, five hours credit only given for summer session student teaching.
373. West Virginia Wesleyan College, Buckhannon – Internship program.

WISCONSIN

374. Marian College of Fond du Lac, Fond du Lac – Professional semester with September experience.
375. Viterbo College, La Crosse – Interaction analysis.
376. Carthage College, Kenosha – Videotaping.
377. Lawrence University, Appleton – Methods, guidance and reading are taught concurrently with the student teaching experience.
378. Edgewood College, Madison – Secondary level - change from full-time during first five weeks to three hours per day and extending the methods courses until Christmas.
379. Wisconsin State University - Oshkosh, Oshkosh – Internship.
380. University of Wisconsin, Madison – Full-time semester internship available to qualified graduate and undergraduate students in addition to the block program, training of cooperating teachers, telesupervision.
381. Wisconsin State University - Whitewater, Whitewater – Experimental programs - clinical professionship.
382. Wisconsin State University - Superior, Superior – Exchange program.
383. Carroll College, Waukesha – Professional semester.
384. Alverno College, Milwaukee – Block program.
385. Dominican College, Racine – Six students per year live in inner-city area and do their student teaching there.

PART II
STUDENT TEACHING INNOVATIONS BY TYPE

In the first section of this report, each institution was assigned a number. The following series of tables list, by these institution numbers, the schools that reported employing each type of innovation. It must be remembered when viewing these tables, that other schools may also be doing the thing listed in a given table, but do not consider it be be an innovation and therefore did not list it as such. For this reason, the reader must be careful not to interpret the following tables as an indication of how widely each of the following practices is being used throughout the country. If such information is desired, it can be obtained by referring to the final report[1] of this research project, also published by M–STEP. The following tables, then, indicate only the institutions which consider this practice innovative. If more detailed information is desired about a certain innovation at a given institution, it is recommended that you write directly to the "Director of Student Teaching" at that institution.

REFERENCE TABLES

Table 1 – USE TELEVISION EQUIPMENT WITH STUDENT TEACHERS
Institution Numbers: 4, 18, 25, 28, 32, 36, 58, 60, 62, 67, 70, 77, 82, 86, 88, 95, 100, 101, 102, 105, 106, 111, 112, 122, 127, 155, 169, 183, 184, 187, 190, 194, 195, 203, 207, 244, 254, 258, 265, 266, 269, 271, 277, 279, 283, 287, 313, 320, 322, 328, 329, 350, 354, 367, 376, 380.

Table 2 – PROVIDE MICRO-TEACHING EXPERIENCES
Institution Numbers: 21, 23, 67, 74, 76, 100, 101, 105, 122, 127, 194, 207, 266, 271, 275, 308, 311, 341, 351, 359, 366, 371.

Table 3 – USE AUDIOTAPING EQUIPMENT WITH STUDENT TEACHERS
Institution Numbers: 103, 247.

Table 4 – USE SIMULATION MATERIALS IN PROGRAM OF PROFESSIONAL LABORATORY EXPERIENCES
Institution Numbers: 107, 203, 231, 328.

Table 5 – PROVIDE UNUSUAL OR EXTENSIVE PRESTUDENT TEACHING LABORATORY EXPERIENCES
Institution Numbers: 5, 6, 19, 22, 26, 45, 46, 53, 54, 56, 58, 64, 65, 67, 73, 74, 78, 79, 81, 87, 94, 107, 121, 122, 127, 142, 148, 152, 177, 180, 184, 202, 206, 208, 225, 242, 250, 253, 260, 264, 267, 273, 281, 292, 293, 294, 304, 307, 334, 352, 358, 359, 364, 372.

Table 6 – EMPLOY A PROFESSIONAL SEMESTER
Institution Numbers: 47, 62, 63, 69, 76, 89, 90, 92, 93, 96, 101, 113, 116, 140, 162, 164, 172, 182, 188, 189, 201, 214, 223, 228, 236, 239, 257, 261, 272, 280, 295, 298, 301, 303, 304, 305, 312, 327, 329, 331, 333, 336, 339, 343, 344, 347, 374, 380, 383.

Table 7 – UTILIZE A BLOCK PROGRAM CONCEPT
Institution Numbers: 67, 87, 113, 147, 154, 185, 189, 209, 217, 229, 263, 274, 317, 318, 319, 329, 330, 347, 369, 380, 384.

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[1] Johnson, James A. *A National Survey of Student Teaching Programs*, Baltimore: Multi-State Teacher Education Project, October, 1968.

Table 8 – EMPLOY A STUDENT TEACHING CENTER CONCEPT
Institution Numbers: 49, 52, 59, 66, 67, 84, 129, 137, 138, 143, 149, 150, 156, 157, 159, 206, 210, 234, 237, 241, 252, 289, 306, 310, 352.

Table 9 – UTILIZE RESIDENT COORDINATORS
Institution Numbers: 66, 84, 85, 179, 234, 310.

Table 10 – EMPLOY A CLINICAL PROFESSOR CONCEPT
Institution Numbers: 41, 67, 144, 274, 276, 278, 381.

Table 11 – USE TEAM SUPERVISION
Institution Numbers: 219, 277, 285.

Table 12 – UTILIZE SUBJECT MATTER SPECIALISTS AS COLLEGE SUPERVISORS
Institution Numbers: 36, 59, 67, 113, 118, 132, 243, 355.

Table 13 – PROVIDE STUDENT TEACHING AND METHODS COURSES CONCURRENTLY
Institution Numbers: 20, 47, 63, 179, 240, 296, 377.

Table 14 – CONDUCT SEMINARS FOR STUDENT TEACHERS
Institution Numbers: 3, 12, 29, 36, 43, 61, 91, 99, 109, 174, 215, 245, 294, 316, 324, 326, 346, 360.

Table 15 – USE THE INTERACTION ANALYSIS TECHNIQUE WITH STUDENT TEACHERS
Institution Numbers: 52, 109, 195, 197, 306, 326, 328, 341, 361, 366, 371, 375.

Table 16 – PLACE STUDENT TEACHERS IN TEAM TEACHING AND/OR NON-GRADED SITUATIONS
Institution Numbers: 2, 13, 14, 18, 60, 82, 114, 161, 197, 198, 205, 206, 222, 229, 268, 287, 314, 321, 322, 323, 325, 338, 351, 354.

Table 17 – HAVE UNUSUAL SYSTEM OF JOINT RESPONSIBILITY FOR STUDENT TEACHING WITH PUBLIC SCHOOL SYSTEM
Institution Numbers: 34, 129, 150, 167, 179, 278, 289, 299.

Table 18 – HAVE A STUDENT TEACHING ADVISORY COUNCIL
Institution Numbers: 26, 167, 247.

Table 19 – HAVE SPECIAL REQUIREMENTS OF OR ARRANGEMENTS WITH COOPERATING TEACHERS
Institution Numbers: 38, 84, 85, 99, 119, 139, 145, 151, 166, 176, 178, 199, 220, 230, 256, 284, 337, 363, 380.

Table 20 – PROVIDE STUDENT TEACHING EXPERIENCES IN A VARIETY OF DIFFERENT SITUATIONS
Institution Numbers: 5, 24, 51, 98, 124, 180, 181, 226, 262, 290, 297, 357, 362, 370.

Table 21 – PROVIDE STUDENT TEACHING EXPERIENCE IN DISADVANTAGED AREAS
Institution Numbers: 7, 15, 22, 50, 67, 83, 98, 136, 153, 157, 158, 160, 163, 169, 184, 186, 196, 200, 218, 235, 249, 255, 270, 289, 332, 385.

Table 22 – PROVIDE OPPORTUNITY FOR STUDENT TEACHING IN OTHER NATIONS
Institution Numbers: 1, 157, 338.

Table 23 – PLACE TWO STUDENT TEACHERS IN SAME CLASSROOM AT SAME TIME
Institution Numbers: 16, 50, 265.

Table 24 – PROVIDE FULL-TIME STUDENT TEACHING ASSIGNMENT
Institution Numbers: 10, 11, 15, 28, 64, 80, 135, 160, 248, 272.

Table 25 – EMPLOY A COMBINATION FULL-TIME/PART-TIME TEACHING ASSIGNMENT
Institution Numbers: 31, 378.

Table 26 – ASSIGN STUDENT TEACHERS OFF-CAMPUS
Institution Numbers: 34, 175.

Table 27 – REQUIRE STUDENT TEACHING DURING JUNIOR YEAR
Institution Numbers: 44, 133, 171, 208.

Table 28 – REQUIRE STUDENT TEACHERS TO TAKE PART IN A SEPTEMBER EXPERIENCE
Institution Numbers: 53, 61, 68, 104, 110, 173, 177, 192, 224, 273, 292, 360, 374.

Table 29 – PROVIDE OUTDOOR EDUCATION PROFESSIONAL LABORATORY EXPERIENCES
Institution Numbers: 40, 67.

Table 30 – DO NOT USE A, B, C GRADING SYSTEM FOR STUDENT TEACHERS
Institution Numbers: 80, 125, 259, 345.

Table 31 – REQUIRE STUDENT TEACHERS TO KEEP A DAILY LOG
Institution Numbers: 27.

Table 32 – EMPLOY AN INTERNSHIP CONCEPT
Institution Numbers: 15, 17, 20, 30, 35, 115, 117, 123, 158, 159, 165, 168, 250, 274, 277, 291, 300, 334, 340, 348, 353, 373, 379, 380.

Table 33 – EMPLOY A TEACHING PRACTICUM CONCEPT
Institution Numbers: 71, 202.

Table 34 – EMPLOY AN APPRENTICE TEACHING CONCEPT
Institution Numbers: 8, 232.

Table 35 – EMPLOY A TEACHER AIDE CONCEPT
Institution Numbers: 22, 33, 126, 130, 141, 142, 315, 372.

Table 36 – EMPLOY GROUP PROCESS PRINCIPLES
Institution Numbers: 39.

Table 37 – HAVE AN HONORS PROGRAM FOR STUDENT TEACHERS
Institution Numbers: 108.

Table 38 – MAKE A REAL ATTEMPT TO INDIVIDUALIZE STUDENT TEACHING EXPERIENCE
Institution Numbers: 97, 170, 229, 282, 363.

Chapter VI

The Individualized Teacher Education Program at Brigham Young University*

THIS paper describes an experimental program for the preservice training of secondary teachers tested recently at Brigham Young University.

Presently, the program provides within a one-semester structure nineteen of the twenty-three semester credit hours of professional education required for certification. Students move through the material at their own pace in that they may complete assignments ahead of deadlines if they wish. At the time of this writing, the project was not as yet fully individualized because of the time limit imposed by its semester structure.

A major departure from conventional teacher education programs is seen in the performance orientation of the program. That is, preservice teachers are recommended for certification on the basis of their ability to *perform the behaviors* that good teachers perform, rather than on their ability to endure a sequence of professional education courses.

Since the course began in the spring semester, 1966, with eleven students, we have done the following:

1. Tentatively identified those things which a secondary teacher needs to know and be able to do to begin as a certified teacher, and translate these essentials into written behavioral objectives for the course.
2. Modified the amount and kind of student teaching experience.
    a. Cut time in half.

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*This chapter is a reproduction of: J. Hugh Baird, W. Dwayne Belt, Lyal Holder, *The Individualized Secondary Teacher Education Program at Brigham Young University*, M-STEP Monograph No. 2, (Salt Lake City: Utah State Board of Education) 1967.

  b. Assigned student teachers in teams of two or three.
  c. Substituted micro-teaching for some of the in-class student teaching time.

3. Combined almost all course work (19 hours) into a unified semester of work, eliminating unnecessary course overlap and allowing inclusion of new and vital content.
4. Rewritten course content to help pupils move through the program at their own rate.
5. Tested these changes for four semesters.

Approximately sixty students have completed the program during the four semester pilot period.

PROGRAM RATIONALE

In an age of education characterized by innovations, research in learning and teaching, changing roles for the teachers, and teachers demanding more voice in the educational enterprise, the professional certification program for secondary teachers is yet often based on the taking of a series of required education courses.

A number of questions can be raised about the efficiency of the present system of training teachers. Some of these are as follows:

1. Is it justifiable to assign a student teacher to a less than excellent supervising teacher simply because there are not sufficient excellent teachers available?
2. Is the assumption valid that each student teacher needs an identical clock-hour requirement of public school practice teaching?
3. Since each trainee is unique in his abilities, interests, and needs, ought we to provide more for individual differences than is possible within the present program?
4. To what extent can and should new approaches to examination of teacher performance (e.g., videotapes, classroom interaction analysis, micro-teaching) be utilized in a teacher preparation program?
5. Does taking a series of courses guarantee any degree of proficiency on the part of the teacher to perform the tasks required in our present educational system?

Answers to some of these questions are being sought by the faculty members at Brigham Young University who are engaged in the program described in this paper. This program was tested with small groups of secondary trainees.

The faculty members associated with the Secondary Experimental Program at Brigham Young University are convinced that certification based on a series of courses and credits is no longer desirable. They feel that the ability to perform certain specified behaviors is a more rational basis on which to certify individuals to teach in the secondary schools. The innovations of team teaching, continuous progress education, non-graded schools, and the expanding use of technology in our schools have helped change the role of the teacher to an identifier of learning problems and a director of learning activities rather than a presenter of information. More and more teachers are being given opportunities to assume the responsibility for individualizing instruction, for counseling students, for curriculum changing and curriculum writing, instruction through diverse methods, for emphasizing the processes of inquiry and discovery, for cooperating in planning the presentation of programs, for guiding students in the process of self-direction, and for identifying learning activities which are appropriate and effective in large-group instruction, and independent study situations.

Since teachers tend to teach as they have been taught, it is necessary that prospective teachers be trained in a program where the emphasis is on teaching and learning behavior designed to facilitate the changing practices in the public schools. This program might be a learning situation in which opportunities are provided for experiences with various media, evaluation on some basis other than facts alone, interpersonal relationships, student examination of his values related to education, faith in the ability of students to help educate themselves, and the teacher as a resource person and facilitator. Included in this program must be opportunities for the prospective teacher to assume individual responsibility for his own study and learning. This type of program would preclude the common practice of instructing all students of a given class as though they were identical in achievement and readiness for learning. Groups of students can be taught, but only individuals can learn.

During the spring semester, 1965, an experiment was conducted at Brigham Young University in a beginning methods class to determine if there was a significant difference in learning between students who complete the course in a self-paced mode and those who complete the same course in the traditional lecture discussion mode.[1] The results of this research seemed to justify moving even further into an examination of our conventional teacher education program.

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[1] Clark Webb and Hugh Baird, "Learning Differences Resulting from Teacher and Student-Centered Teaching Methods." Paper presented at the annual meeting of the American Educational Research Association, February 16-18, 1967, New York. Victor Bunderson has since conducted similar research to verify these data. See Victor Bunderson, "Computer-Assisted Instruction in Self-Paced Teacher Education." Paper presented at the annual meeting of the American Educational Research Association, February 1968, Chicago.

In designing such a program for prospective secondary teachers, consensus on the desirability of all the practices that could be undertaken might be difficult. However, the function of helping students to learn more effectively and more efficiently would probably find rather general approval. To learn most efficiently, one must have specific goals or objectives. Teaching and instructing are processes and are not ends, goals, or objectives. Processes without ends, goals, or objectives seldom last. If for some reason they survive, they often produce unspecified outcomes which are more the result of accident than of planning. To avoid accidental outcomes resulting from the teaching process requires prior statements of objectives or intended outcomes. The outcomes of such teaching are overt behavorial acts or behavorial products.

Specifying behavorial objectives for prospective secondary teachers was one of the first steps taken in preparing the experimental program. Approximately sixty behavorial objectives were originally written. The research on effective teaching and learning provided essential teacher behaviors from which we began our list. Analysis of communication problems among teachers and parents, pupils, and administration provided additional behaviors. Some of the objectives came as a result of our personal experiences as teachers and supervisors of teachers. Data about students--their similarities, differences, needs, abilities, development patterns, and styles of learning--provided the basis for other objectives.

The identification of these objectives gave direction to the identification of concepts and skills which a student must have at his command in order to perform the behaviors which are specified. Once terminal behaviors and their related concepts and skills were identified and placed in sequence and priority, the entire range of curriculum was open to all of the students. Specification of behavorial objectives also provided the opportunity to preassess the prospective teacher's abilities and to determine the point at which instruction for that individual should begin.

The behavorial objectives with their accompanying skills and concepts in the Secondary Experimental Program at Brigham Young University have been determined as the basis of the changing role of the teacher and the teacher's responsibility of representing himself and the educational institution within the profession and within the community. These objectives are listed below.

Unit 1
ORIENTATION

Unit 2
ADMINISTRATIVE ASPECTS OF TEACHING

2.10 Significant Events, Persons, Effects

The preservice teacher will discuss in writing one historically significant educational event from each of the following eight time periods including a person or group who was prominently associated with it, and the immediate and long-range effects upon the educational enterprise.

Time Periods: (1) 1635-1693, (2) 1694-1790, (3) 1791-1845, (4) 1846-1887, (5) 1888-1910, (6) 1911-1924, (7) 1925-1951, (8) 1952-present.

2.20 Common Law Precedents for Educators

When given a brief description of court cases dealing with school law, the preservice teacher will identify how the court has or most likely would decide on the case and give a one-sentence explanation of the basic principle of law involved.

Minimal performance would be identification of appropriate disposition of the cases and the principles of law involved with 80 percent accuracy, as judged by the instructor.

2.21 Contractual Agreements

The preservice teacher will:

1. Define annual, continuing, and tenure contracts.
2. Give examples of contractual agreements, differentiate among them and after analysis state which type of contractual arrangement applies.
3. State or recognize the advantages and disadvantages of each type for the teacher and the school district.
4. State the conditions under which a teacher could be released from service under each contractual type.

2.30 Public School Finance

When given the following actual or hypothetical information:

1. A school district property evaluation at actual cash value,
2. Assessed valuation or assessment ratio, and

3. School district enrolled student population, the preservice teacher will:
    a. Compute the percentage, mill levy, and dollar amount of state and local district involvement in the Utah Equalization Program.
    b. Compute the dollar amount of taxes to a home-owner with property of a given cash evaluation.
    c. State the available alternatives in terms of the implications in any changes in the given data.
    d. State the percentage, mill levy, dollar amount, and instructional implications for each of the above alternatives.
    e. State which alternative he would recommend to a board of education if he were its superintendent, and why, such that the decision made would best satisfy the question, ''What is best for students?''

2.40 Authority and Responsibility

The preservice teacher will:

1. Differentiate between authority and responsibility, and use approriately in objective 2.41 and all other class work, and
2. State the two general sources of authority for each part of objective 2.41.

2.41 Educational Agencies and Officers

The preservice teacher will describe in writing the educational role of the following:

1. Citizen
2. Federal agencies
3. State board of education
4. State legislature
5. State superintendent of public instruction
6. State department of education
7. Local school district boards of education
8. Local superintendent of schools
9. Building principal
10. Teacher
11. Patron

The description shall include source of authority, delegation of authority, and assumption of responsibility. Delegation of authority and responsibility shall meet the criteria of objective 2.40.

He shall also describe the relationship of the agencies and officers to each other in fulfilling the educational mandate of the state constitution.

2.42 *Line and Staff Authority*

The preservice teacher will:

1. Differentiate line and staff authority as applicable to school district organizations.
2. Given line and staff positions by titular designations: patron, custodian, teacher, superintendent, principal, lay advisory group to board of education, assistant superintendent for instruction, guidance counselor, student, subject-matter consultants, and department chairman, prepare a line and staff diagram or select appropriate diagrams which will illustrate line and staff relationships.

2.50 *Ethics for the Teacher*

As a teacher in, or an observer of, a teaching situation, the preservice teacher will describe in writing at least eight situations which demonstrate four ethical and four unethical behaviors on the part of the teacher. The descriptions shall illustrate a different principle for each situation.

Each behavior described shall be identified as illustrative or a specific part of the NEA Code of Ethics by stating the principle(s) in writing in preparation for class discussion.

2.51 *Supervision*

The preservice teacher will:

1. Write a functional definition of goal-oriented supervision.
2. Use the principles of goal-oriented supervision with perceived problems during the student teaching experience.

Unit 3
BEHAVORIAL OBJECTIVES

3.10 *Behavorial Objectives*

The preservice teacher will:

1. Write at least nine educational objectives which are behavorial according to Mager's[2] criteria, at least three of which would be

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[2] Robert F. Mager, *Preparing Objectives for Programmed Instruction* (San Francisco: Fearon Publishers, 1962).

classified in each of the following categories: affective, higher than lowest cognitive, and psychomotor.

a. Objectives for at least two of these categories in your major or minor fields.

b. The three objectives in the higher than lowest cognitive category in a sequence in order that one behavior leads to the next.

c. Label the parts of at least three of the nine objectives according to the criteria identified by Mager.

Unit 4
INSTRUCTIONAL MATERIALS AND EQUIPMENT

4.10 16 mm Projector

The preservice teacher will operate an autoload and two other types of 16 mm projectors. Operation includes assembling the equipment, threading the film, adjusting the sound and visual image, rewinding the film, storing the equipment, and preparing the room. Preparing the equipment and the room should take no more than five minutes.

4.11 Filmstrip Projector

The preservice teacher will operate filmstrip projector with or without coordinated record and/or tape. Operation includes assembling the equipment; threading the filmstrip; threading the tape, if used; placing the record on the record player, if appropriate; showing the filmstrip; rewinding materials; and preparing the room. Preparing the equipment and the room should take no longer than five minutes.

4.12 Overhead Projector

The preservice teacher will operate the overhead projector. Operation includes assembling the equipment, preparing the room, focusing, and putting equipment away. Preparing equipment and room shall take no more than two minutes.

4.13 Opaque Projector

The preservice teacher will operate the opaque projector, using both flat and three-dimensional materials. Operation includes assembling the equipment, adjusting the image, and preparing the room for projection. Preparing the equipment and the room will take no more than two minutes.

4.14 Infrared Copier

The preservice teacher will operate an infrared copy machine. Operation will include preparing the machine for use and making a transparency as well as a spirit master reproduction.

4.15 Tape Recorder

The preservice teacher will operate the tape recorder and record a usable tape which includes sound from multiple sources. Operation includes assembling, loading the tape, adjusting sound, level and speed, rewinding and storing tape and equipment. Operation also includes playback through the speaker and through earphones. Preparation of equipment shall take no longer than two minutes.

4.16 Ditto Machine

The preservice teacher will operate the ditto machine and prepare two kinds of masters: typed copy, hand-made drawings or letterings. Operation includes assembling the equipment, inserting the master, preparing ditto copies, and storing equipment. Students should be able to print five usable copies in one minute or less.

4.17 Use of Equipment and Materials

The preservice teacher will demonstrate the instructional use of the following combinations of equipment and teaching methods:

1. 16 mm projector, dramatization and pantomine,
2. Filmstrip and overhead projectors, buzz and discussion groups,
3. Opaque projectors, charts and bulletin boards, panels, and committees,
4. Tape recorder and role playing.

These demonstrations will be presented in team groups in preparation for application during student teaching. The presentation will include perception, conceptualization, and application. (See objective 8.10 before asking questions of instructor.) Presentation will be made concurrent with 5.50.

The team will write for the instructor and students:

1. One or more Mager-style objectives to be achieved during the presentation (for objectives 4.17 and 5.50).
2. Conceptual statements of the concepts the students observing the presentation are to learn (for objectives 4.17 and 5.50). Team will also evaluate whether or not the objectives have been achieved.

The presentation shall include a two-minute brainstorming session on instructional use of this equipment in the subject-matter fields represented by class members and shall be completed in no more than 45 minutes.

Unit 5

TEACHING METHODS

5.10 Preassessment

1. Given or having written behavorial objectives and conceptual or skill statements, the preservice teacher will write appropriate preassessment procedures which:
   a. Determine that the learner can or cannot perform the behavior objectives, or
   b. That he has a working knowledge of the concepts or skills requisite to performance of the behavior of the objectives.
2. The preservice teacher will utilize preassessment procedures in teaching lesson and unit plans according to criteria presented in class lecture-discussions.

5.20 Introducing a Unit

The preservice teacher will introduce a curriculum unit so that material will be highly motivational, will indicate to the learner the terminal behavior expected of him, and will indicate to the learner ways to begin the learning. To achieve the objective, the unit must contain the three elements named above, as judged by college supervisor.

5.30 Identifying Reading Level

The preservice teacher will identify the reading level of each pupil in class. Reading level will be stated in terms of grade level and will be measured in terms of the specific subject area to be taught, i.e., mathematics, science, social studies, etc. Data will be presented to instructor in written form including identification of level for each pupil, and summary including mean and extremes.

5.31 Use of Reading Level

Having determined the reading levels of each pupil in the class, the preservice teacher will adjust the instruction in two of six ways listed below.

1. Rewrite materials.
2. Identify multi-level materials:
   a. printed materials
   b. filmstrips
   c. recordings
   d. films
3. Tape record direct content of materials with guided directions or explanations of vocabulary.
4. Tape record directions for reading certain content materials.
5. Outline steps in application of S.Q.3.R. for lesson. Criteria are those given in lectures-discussions.

5.40 Individual Differences

The preservice teacher will prepare unit materials and conduct his instruction so as to take into account the individual differences of pupils. Criteria will be satisfied if the following conditions are met:

1. Grades are based on a variety of measures, no more than one-half of which will require pupil's written response, and
2. Learning activities include a variety as close to the referent as possible.

5.41 Directing Quest

The team of preservice teachers will direct the individual quest of at least ten pupils in one class. The project will be planned cooperatively with each pupil and should include the topic, pupil's objective, learning experiences, time limits, and an oral or written summary of the quest project. The pupil will conduct at least part of the quest during the regular class time. Each member of the student teaching team must participate in the project.

5.50 Teaching Methods

The preservice teacher will demonstrate the instructional use of role playing, dramatization and pantomine, buzz and discussion groups, panels and committees. Demonstrations will be done by team presentations and must include the following:

1. Use of assigned equipment (see objective 4.17).
2. Instruction in how to prepare pupils to use and benefit from the method.
3. Relevant cautions regarding use of the method.

4. Learning activities which will help members of the college class apply the method to their respective subject areas.

Creativity, imagination, and a fresh kind of presentation will not be penalized.

5.60 *Inductive and Deductive Teaching*

When shown a lesson plan and/or examples of teaching, the preservice teacher will be able to identify (either in writing or orally) a lesson as being either inductively or deductively arranged.

Preservice teacher will also teach one concept inductively as part of a student teaching unit. Identifying note will be made in the unit.

5.70 *Tape Sequence*

The preservice teacher will prepare an illustrated tape sequence which could be used to teach a specific objective in a unit.

At least three illustrations will be used in the sequence. Illustrations may be pictures, graphs, drawings, or a combination. Each illustration must contain a minimum of written information.

A magnetic tape narration will be prepared to accompany the illustrations and will include at least two sources of sound. It shall require the student to respond to the material and help him to know whether his response is correct, and why. This tape sequence may not be used to meet the requirements of objectives 5.80 or 8.60.

5.80 *Study Guide*

The preservice teacher will prepare a study guide worksheet to be used by students in their work with written materials or films or lecture-discussions, etc.

The guide will:

1. Cause students to ask questions of the materials.
2. Help motivate students.
3. Help students identify and remember important concepts contained in the materials.
4. Provide students with review.
5. Provide a check for the preservice teacher to insure that study will have been done.

5.90 *Non-Oral Teaching*

The preservice teacher will teach a single concept without orally communicating to his class. The teacher will get all of the students actively involved, and more than half of his class shall achieve the objectives of the non-oral lesson taught. Inquiry training will not be acceptable as the major learning activity of the lesson.

Unit 6

HUMAN DEVELOPMENT

6.10 *Human Development*

The preservice teacher will:

1. Given descriptions of predominant developmental characteristics (emotional, social, intellectual, and physical) in an objective test format, identify the development level or age level at which the characteristics are most typically found. Minimal acceptable test performance will be 70 percent.
2. Given abbreviated descriptions of human behavior, differentiate with 70 percent accuracy between typical and atypical developmental patterns and/or identify general abnormalities in growth pattern disturbance, or a simple situational reaction.
3. Upon being presented with descriptions of a variety of human behaviors often exhibited by particular age groups in a closed book essay examination:
    a. Analyze the situation and state the factors, according to human development principles, which appear to be causing or contributing to the problem.
    b. From the factors stated in 1 above, hypothesize the major problem(s) for which there should be concern.
    c. Propose in writing various alternatives based upon his knowledge of human development principles that a teacher and/or parent might utilize to lessen the concern of those acting to solve the problem(s).

6.20 *Self-Directing Study*

The preservice teacher will select for further study an area of interest in the field of human development and will:

1. Define at least one behavorial objective for himself.
2. Define and set up learning activities.
3. Set up methods or procedures by which achievement of the objective(s) can be evaluated. Evaluation of achievement will be done by the student and his group with the final check by the instructor.

Unit 7
MICRO-TEACHING

7.10 Micro-Teaching

After having observed micro-teaching demonstrations of objectives 7.11-7.16, and been an active participant in the evaluation, the preservice teacher will micro-teach at least five times satisfying the acceptable performance level for objectives 7.11-7.16. Two or more objectives may be combined into one performance. Before each lesson, he will submit to his instructor a written plan which will include at least the following:

1. A statement identifying which objective is being satisfied.
2. One or more behavorial objectives for the lesson.
3. Statements of necessary concepts to be learned.
4. Learning and evaluation activities in sequence.

7.11 Teach a Concept

The preservice teacher will teach a single concept and evaluate whether or not it has been learned within a period of seven minutes. A critique of the presentation will be made by the class members in terms of the learning activities selected to bring the referent to the students, amount of student involvement,- whether or not the concept was learned, and the voice, poise, and mannerisms of the teacher. He will summarize the suggestions made for improvement and state those he would select for implementation and the steps he would take to implement them.

7.12 Reinforcing Student Behavior

While teaching a seven-minute concept lesson, the preservice teacher will demonstrate positive ways to reinforce desirable student behavior. The demonstration will include at least four different appropriate ways of providing positive reinforcement and must involve directly a majority of the members of the micro-class.

7.13 Micro-Teaching Lesson with Questions

The preservice teacher will micro-teach before the video camera a concept lesson within a period of seven minutes using almost exclusively the asking of questions.

Acceptable performance shall require:

1. The use of each of the following types of questions at least once:
    a. cognitive memory
    b. convergent

   c. divergent
   d. evaluative
2. Question sequence to cause student responses to progress smoothly from one cognitive level to another rather than jump around.
3. Questions phrased so those being taught do not request questions to be repeated or rephrased.
4. Response to questions being fairly well distributed among the learners.
5. The lesson progression to follow the lesson plan and the learning sequence.
6. An evaluation during the seven-minute period from which the learners, teacher, and evaluator can know whether the objective of the lesson has been achieved by at least 75 percent of the learners.

7.14 Involvement-Interest

Given a class which is not interested in the lesson, the preservice teacher will interest and involve the students in a concept lesson of at least five minutes. If necessary, the teacher will use at least five techniques to get and keep attention.

7.15 Reality Therapy

When placed in a hypothetical problem situation, the preservice teacher will demonstrate the appropriate use of Reality Therapy as he works to resolve the problem. The demonstration will use at least four of the six techniques of Reality Therapy as defined by Glasser.[3]

7.16 Inquiry

The preservice teacher will teach a concept lesson using inquiry methods. The lesson shall include the three parts of an inquiry lesson:

1. Preparation of the class.
2. Student inquiry.
3. Follow-up analysis of the inquiry process.

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[3] William Glasser, *Reality Therapy* (New York: Harper and Row Publishers, 1965).

Unit 8
LEARNING

8.10 Cognitive Learning Sequence

1. For all assigned lesson plans and curriculum units, the preservice teacher will prepare learning activities to do the following:
    a. Focus the attention of the learners on the referent for each major concept.
    b. Provide for conceptualization of each major concept at and above the lowest cognitive level.
    c. Make provisions for application of each major concept by the learners.
2. Upon being given specific teaching-learning situation, the preservice teacher will be able to differentiate between appropriate sequential teaching procedures for cognitive learning by specifically outlining during a timed, open-book test those appropriate teaching procedures to achieve the intended objective.

To be acceptable, the three steps in the learning sequence must occur in the order listed above.

8.20 Psychomotor Learning Sequence

1. For all psychomotor lesson plans prepared, and all psychomotor skills included to be taught as part of assigned curriculum units, the preservice teacher will prepare and use learning activities to do the following:
    a. Help the learner "preview" the psychomotor activities.
    b. Provide for explanatory effort and guided practice until the learner performs the act correctly.
    c. Provide for repetitive practice sessions which are appropriate in terms of deviation and frequency.
    d. Provide for "transfer" of the psychomotor activities to other subsequent behaviors.
2. Upon being given a specific teaching-learning situation, the preservice teacher will be able to differentiate between appropriate sequential teaching procedures for psychomotor skills by specifically outlining during a timed, open-book test those appropriate teaching procedures to achieve the intended objective.

To be acceptable, the four steps in the learning sequence must occur in the order listed above.

8.30 Learning Styles

The preservice teacher will individualize the instruction for which he is responsible in student teaching to accommodate the possible differences in learning styles of (at least one of) his students by preparing special materials or by using special teaching models as appropriate to the needs of the students.

8.40 Transfer and Retention of Learning

Given a variety of teaching method alternatives for concepts, skills, attitudes, facts, etc., in an objective test situation, the preservice teacher will identify those methods leading to greater transfer and retention and identify or state the underlying theoretical basis for his choice. Minimal test performance is 70 percent.

8.50 Learning Symbols

The preservice teacher will write learning activities for all lesson and unit plans so that symbols unfamiliar to the learner are not taught until the referent of the symbol has been perceived.

8.60 Process of Learning

The student will differentiate between teaching procedures which would facilitate learning based upon insight and understanding (as described under Gestalt psychology) and learning based upon role or mechanical responses (as described under operant conditioning) as follows:

1. When given a typical classroom learning situation on an essay test, outline the precise steps by which a teacher would proceed to promote each type of learning, and
2. Plan and conduct conditioning of a desired behavior in the classroom setting.

8.70 Programmed Material

Having written a behavorial objective, the preservice teacher will prepare programmed material for teaching at least one concept requisite to performance of the objective such that the student can use the materials independently of the teacher.

Unit 9
CURRICULUM PREPARATION

9.10 Curriculum Preparation

The preservice teacher will be responsible for team planning, writing, and teaching of one or more units of a selected course of study to be taught during student teaching.

Included in the unit(s) for which he has this responsibility will be the following:

9.11 A graphed course layout (see objective 9.20).

9.12 Terminal objectives written for the topics and skills covered in the unit according to Mager (see objective 3.10).

9.13 A sequential list of concepts and skills for which a working knowledge is needed if students are to obtain the terminal objectives (see objective 9.40 and 9.41).

9.14 A preassessment test to determine the points at which students individually or as a group, enter the instructional sequence (see objective 5.10).

9.15 Learning activities some of which:

  9.1511 Introduce the unit (see objective 5.20).

  9.1512 Gain the attention and interest of the learner.

  9.1513 Are appropriate for the cognitive and psychomotor learning sequences (see objectives 8.10 and 8.20).

  9.1514 Provide for individual differences (see objectives 5.30, 5.31, 5.40, 5.41).

  9.1515 Require students to perform above the lowest cognitive level in at least two learning and two evaluation activities.

  9.1516 Are presented in an inductive manner (see objective 5.60).

  9.1517 Include student inquiry training and use of inquiry (see objective 7.16).

  9.1518 Include a segment of content which is completely programmed (see objective 8.70).

  9.1519 Are presented non-orally (see objective 5.90).

  9.1520 Are presented with an illustrated tape (see objective 5.70).

  9.1521 Involve study guides for learning a concept or skill in which students need such guidance through the learning activities (see objective 5.80).

  9.1522 Are presented with a bulletin board (see objective 9.50).

9.1523 Include two of the following:

1. Role playing
2. Dramatization or pantomine
3. Buzz or discussion groups
4. Panels and committees
5. Activity which gets students out of the classroom to obtain relevant information.

9.16 A written record of assignments given.

9.17 Evaluate procedures, both norm and criterion referenced, which will determine whether or not objectives have been achieved by the students and which provide for individual differences.

9.18 An analysis of the effectiveness of the unit(s) to include the following:

9.1811 Pupil evaluation of the unit (see objective 9.80).

9.1812 Preservice teacher's evaluation of the unit including recommended revision of the content and learning activities.

When submitted, units shall contain a table of contents or index identifying where the behavior of this objective can be found.

9.20 Course Layout

The student teaching team will prepare a yearly course layout for each class it is assigned to teach during the student teaching assignment. To be acceptable, layout will be prepared in graphed form and will show both sequence of topics and approximate times to be allocated to each topic. The unit for which each member of the team will be responsible as stated in objective 9.10 shall be identified.

9.30 Resource File

The preservice teacher will compile a resource file with appropriate indexing or subject headings for at least one subject commonly taught in secondary schools.

File will contain a variety of materials properly classified into at least ten major categories and appropriate subcategories, unless fewer would be appropriate, as judged by supervisor approval.

9.40 Objective Analysis - Cognitive

The preservice teacher will:

1. Having written cognitive behavorial objectives, at least one of which calls for behavior above the lowest cognitive level, analyze them and prepare a list of conceptual statements of what the student must know to achieve the stated objectives. These concepts are to be arranged in a sequence to facilitate learning.

9.41 Objective Analysis - Psychomotor

If psychomotor objectives are appropriate for your unit, you will analyze them and:

1. Write skills statements of what the student must be able to perform to achieve the stated objectives, and
2. Write the skill statements into a sequence from initiatory to total performance.

9.50 Bulletin Board

The preservice teacher will assume major responsibility for preparation of a bulletin board in the public school in which he performs his student teaching. The bulletin board will do at least one of the following:

1. Introduce a unit.
2. Culminate a unit.
3. Provide learning activity-type information.
4. Present general cultural information pertaining to content area.

The board shall adhere to the principles of balance, unity, line, and other criteria identified in the learning activities.

9.60 Statistics

Given:

1. The number of students who took an examination,
2. Number of test items, and
3. The correct and incorrect items for each student, the preservice teacher will:
    a. Compute the standard deviation.
    b. Compute the standard error of measurement of the data.
    c. Label all computations so the evaluator can easily follow the process.
    d. Be an active contributor to a lecture-discussion of the relationship of these statistics to norm and criteria referenced evaluation as judged by the instructor(s).

9.70 Test Construction and Analysis

The preservice teacher will:

1. Construct a test instrument which contains at least three examples of each type of test question and which specifically measures achievement of terminal behavior specified in a unit for which he has major responsibility, such that at least 10 percent of the items call for student response above the lowest cognitive level.
2. Identify the cognitive level of performance for each item, i.e., lowest cognitive or higher than the lowest cognitive level.
3. Prepare a chart as evidence that the items used in the test are a representative sampling of the concepts embraced in the objective(s) and describe how the chart analysis could be used for diagnostic purposes in the pre- and post-test situations.

9.80 Pupil Evaluation

Each team of preservice teachers will evaluate the units used during student teaching by conducting oral discussions with groups of not more than 15 of their public school students at a time. The sessions shall provide feedback for at least one unit for which each team member has major responsibility. They shall make provision for one session at the conclusion of the first unit and one relatively close to the end of the student teaching assignment. Students will evaluate objectives and learning activities of the units. Where feasible and desirable, student suggestions will be incorporated into subsequent instruction. The preservice teacher's evaluation shall be made orally to his supervisor.

Unit 10

STUDENT MANAGEMENT

10.10 Reality Therapy

The preservice teacher will demonstrate during student teaching the use of Reality Therapy by doing the following:

1. Prepare a case study on a problem student enrolled in one of the teacher's classes. Case will include basic information about the student and a brief description of what he does in and out of class.
    - a. Add taped or written dialogue to the case study which describes at least three ways he has attempted to show his students he cares and that the student is of worth.
    - b. Add taped or written dialogue to the case study which describes at least three attempts to get the student to admit his behavior and identify the consequences of this behavior.

   c. Add taped or written dialogue to the case study which describes at least two attempts to show the student that only he can change his situation.
   d. Add taped or written dialogue to the case study which describes his attempt to help the student identify his present behavior pattern and relate it to his short- and long-range goals, and establish a plan or course of action to reach his goals.

2. Describe in writing at least two attempts to expand the principles of Reality Therapy to a large group of students.

The criteria upon which performance of objectives 1 and 2 above will be evaluated are:

1. A brief account of the situation.
2. Specific examples of what was done.
3. The reaction of the student.
4. An analysis of the effect of the teacher's behavior.
5. What the teacher yet plans to do about the problem.

10.20 Discipline Interaction

The preservice teacher will listen to a taped classroom situation involving a discipline problem and after analysis write a dialogue demonstrating alternative teacher behavior which is less of a personal affront and thus more behavior oriented, ''supportive'' rather than ''rejectory,'' and non-threatening as identified by Amidon and Hunter.[4]

Unit 11
STUDENT TEACHING

11.10 Student Teaching Performance

As a preservice teacher in the public schools, the university student will do the following:

1. Behave as though he were under contract to the district with respect to punctuality, dependability, and regular attendance.
2. Teach his assigned classes for the periods of time specified in his assignment.

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[4] Edmund Amidon and Elizabeth Hunter, *Improving Teaching* (New York: Holt, Rinehart and Winston, 1967).

11.11 Team Teaching

The preservice teacher will work as a member of a team which will include two or three preservice teachers, the public school cooperating teacher, and the university supervisor. Work will begin near the beginning of the semester and will continue through the student teaching assignment. Team effort will contribute to the individual achievement of objectives 11.10 through 11.40 and 9.10 through 9.1812.

11.20 Class Orientation

The preservice teacher will prepare and present an orientation to his students which will communicate his intent regarding each of the following:

1. Format and materials for recording written assignments.
2. Course, content, and behavorial objectives.
3. Types of learning activities to be used for student involvement.
4. Types of materials and resources to be drawn upon for the learning activities.
5. Evaluative procedures to be used.
6. The grading system to be followed.

Effectiveness of presentation is to be judged by team members and also by students during pupil evaluation sessions.

11.30 Public Relations

During the student teaching assignment, the preservice teacher will work to insure better relations among the personnel of the school in which he teaches and the students, parents, and other members of the community. The preservice teacher will make at least one deliberate attempt to improve public relations and will demonstrate wisdom in preserving the good relations which now exist, as judged by the cooperating teacher.

11.40 Interaction Analysis

The preservice teacher will prepare a written analysis of at least two 15-minute sessions in which he is the teacher using the VICS Verbal Interaction System[5] to include:

1. Tally sheets properly completed.
2. Analysis properly made from tally sheets.

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[5] *Ibid.*

3. Comparison of the two sessions contrasting verbal interaction patterns.
4. Suggestions, where appropriate, on how he could better provide for verbal involvement by students.

11.41 Pupil-Pupil Interaction

The preservice teacher will teach a concept lesson in the public school classroom during which at least 25 percent of the verbal interaction falls in the VICS areas or O or S.

11.50 Placement File

The preservice teacher will prepare and submit a credentials file to the placement center and make application for certification. He will prepare the file on his own and it will be submitted prior to the end of the teaching experience. The file must conform to the criteria established by the Placement Office, the certification application to the criteria of the Teacher Clearance Office.

Once the curriculum has been specified, the student then can progress toward certification at his own rate. He is not dependent on a series of courses, and his rate is not determined by his fellow students. Progression through a specified program at his own rate provides the preservice teacher with a better model of teaching behaviors needed in our educational system than the present conventional program. The student is allowed to progress as far and as fast as his capability and initiative will allow by using prepared curriculum materials to guide his independent study. A prospective teacher also sees the possibility of using such procedures in his own classes when he begins to teach.

As a student proceeds through the program at his own rate, the performance criteria which have been identified in the behavorial objectives give quality control to the program. Those pursuing such a program can perform certain specified behaviors with at least a minimal level of performance or they are not recommended for certification. Provision is also made for the student to perform at any level above the minimum commensurate with his initiative and ability.

With such a program, the student no longer spends a specified time in a program working toward certification. No longer is certification based on a certain number of course hours but on the ability of the prospective teacher to perform the behaviors identified in the program.

Purposeful instruction requires knowing not only what the goal is but also what is required to get there and how to tell whether or not one has gotten there. *Continuous Progress Instruction* provides for student learning best when the following are most clearly stated:

1. The goals or objectives for instruction, stated as terminal student behavior.
2. What a student needs to know or learn to achieve the objective(s), in the form of conceptual and skill statements.
3. Preassessment procedures to determine where the student enters the program.
4. The processes for achieving the objective(s) in the form of learning activities.
5. Evaluative procedures.

The following example illustrates these five elements as the student would see them for one objective.

3.10 Behavorial Objectives

The preservice teacher will:

1. Write at least nine educational objectives which are behavioral according to Mager's criteria, at least three of which would be classified in each of the following categories: affective, higher than lowest cognitive, and psychomotor.
    a. Objectives for at least two of these categories are to be written in the student's major or minor fields.
    b. The three objectives in the higher than lowest cognitive category will be written in a sequence so that one behavior leads to the next.
    c. The parts of at least three of the nine objectives will be labeled according to the criteria identified by Mager.

Conceptual Statements

I. A behavorial objective states the learning goal as intended outcomes: overt terminal behavior or a behavorial product.
    A. Overt behavior is observable behavior.
    B. A behavorial product is an observable product resulting from student behavior, e.g., a picture, a dress, a play script, and any other written material, etc.

II. Mager establishes three criteria for an instructionally usable objective.
    A. It should state the intended outcome in terms of terminal student behavior.

   B. It should state the important conditions under which the student will be expected to exhibit the behavior.

   C. It should state at least the minimal or the acceptable criteria of performance.

III. Behavorial objectives are of three types: affective, psychomotor, and cognitive.

   A. Affective behavior involves changes in attitudes, interests, values, and the development of appreciations and adequate adjustment.

   B. Psychomotor behavior involves neuro-muscular or motor skills.

   C. Cognitive behavior involves recall or recognition of knowledge and the development of intellectual abilities and skills.

   D. The cognitive behaviors are taxonomically classifiable, i.e., they describe behavorial change from simple to complex with each succeeding behavior including the preceding simpler behaviors.

      1. Knowledge--involves the recall of specifics and universals, methods and processes, patterns, structures or settings from appropriate signals or cues.

      2. Comprehension--involves the use of the materials or ideas of a communication, regardless of the symbolic form of presentation, in terms of the literal meaning, i.e., the receiver can demonstrate the use of an abstraction, for example.

      3. Application--the selection and use of an appropriate abstraction (concept, generalization, or principle) without having to be prompted as to which is correct or having to be shown how to use it in a given situation.

      4. Analysis--emphasizes the breakdown of a communication into its constituent parts detecting the relationship of the parts, the way they are organized, and even the techniques and devices used to convey the meaning or to establish the conclusion of a communication.

      5. Synthesis--the putting together of elements and pairs so as to form a more complete (than in comprehension, application, and analysis) whole not clearly there before.

      6. Evaluation--the making of judgments for some purpose using criteria or standards for appraising the extent to which particulars are accurate, effective, economical or satisfying.

Preassessment

If you feel you can perform the behavior called for in the objective above, see the graduate assistant for preassessment instrument.

Learning Activities

1. View at least once the filmstrip-tape presentations "Educational Objectives" and "Selecting Appropriate Educational Objectives" using pre-test involvement worksheets and post-tests where applicable.
2. Study Mager's *Preparing Instructional Objectives*.
3. Study the written reserve materials "Types of Objectives" and "Student Examples of Behavorial Objectives and Related Conceptual Statements."
4. Study the audiotape "Types of Objectives and Their Classification." A workbook and an involvement sheet are on reserve which are to be used with this tape.
5. Take written examination "Behavorial Objectives" if you wish to have this learning activity. The examination requires you to differentiate among statements as to whether they are:
    a. Behavorial or non-behavorial according to criteria established by Mager.
    b. Behavorial objectives primarily affective, psychomotor, or cognitive in nature.
    c. Objectives calling for behavior at the lowest cognitive level or at a level above the lowest.
6. Write behavorial objectives to satisfy the objective above and evaluate them with your team.

Evaluation

1. Submit written examples of the objective above.
2. Use appropriate written objectives for all teaching plans.

Unit 12
AFFECTIVE BEHAVIORS

While students are learning to perform cognitive and psychomotor tasks, they are also developing affective behaviors, i.e., attitudes, feelings, preferences, values, etc. Instructional objectives should include specification of desirable student affective behaviors.

Most affective objectives are not given to students but are a guide to the teacher for planning and evaluating student growth. This better insures that students will have made desirable changes in their affective behavior without prescriptive coercion. The following objectives are representative examples:

12.10 Teacher Role Perception

Upon completion of the program, a majority of the students will have changed their perception of the role of the secondary teacher. End-of-course perception will have moved toward the right, assuming a continuum of role perception moving from the left end where the teacher is seen as an "authoritarian teller" to the right and where the teacher is seen as a non-directive resource person.

Role perception will be measured with pre and post instruments and observations.

12.20 Written Plans

Upon completion of the Secondary Experimental Program, the pre-service teacher will demonstrate his preference for the use of written plans by thoroughly writing out the majority of the curriculum units used during his first year of teaching. These units would include behavorial objectives, concepts and skills, preassessment procedures, learning activities, and evaluation procedures for each unit of instruction.

12.30 Individualized Instruction

Upon completion of the Secondary Experimental Program, the pre-service teacher will demonstrate his preference for individualized instruction by doing at least one of the following in his first year of teaching:

1. Use at least ten techniques to provide for individual differences.
2. Design at least three units to allow students to proceed at their best pace.
3. Allow students in at least one class to pursue areas of their own interest for one-fourth of the year's work.

12.40 Evaluate Criteria

Upon completion of the Secondary Experimental Program, the preservice teacher will demonstrate his preference for criterion-referenced evaluation by basing the evaluation of student achievement on these procedures at least 75 percent of the time during his first year of teaching.

12.50 Team Teaching

Upon the completion of the Secondary Experimental program, the preservice teacher will demonstrate his preference for team teaching by seeking employment in a team teaching school. The instigation and/or expansion of team teaching activities in his first year of teaching would also be evidence of this preference.

ORGANIZATION FOR INSTRUCTION

The second step, which proceeded concurrently with the identification of behavorial objectives, was the organizing of learning experiences both varied and comprehensive enough to help prospective secondary school teachers attain the objectives. Just as persons from different institutions would undoubtedly create differing lists of behavorial objectives for a teacher training program, so might the means to accomplish objectives differ widely from one institution to another. The experimental classification program at Brigham Young University is **one** attempt to accomplish a given set of objectives. The program consists of two sequential phases. Phase I, Academic Preparation, consists of instructional activities designed to develop in the trainee capabilities necessary for effective performance in curriculum planning and teaching. Phase II, Student Teaching, provides opportunity for the trainee to use the instructional materials prepared in Phase I in an actual classroom situation.

Phase I: Academic Preparation

Phase I is a non-coursed, integrated presentation of academic content presently lasting one semester (see Figure 1). Eventually, semester bounds will disappear and students will be allowed to progress at their individual rates through the program whether it takes one semester or more--hence the term ''continuous progress.''

Instead of requiring trainees to complete a given number of semester hours of class work, they are required to achieve the behavorial objectives of the program. These behaviors are arranged into eleven units (see Figure 2). No formal classes are held. Figure 3 shows how a student might achieve an objective. At the beginning of each unit, the student is given a syllabus containing the behavorial objectives of the unit and, for some objectives, a pre-test designed to assess his mastery of prerequisite behaviors, as well as the degree to which he can already exhibit the performance specified for the objective. Following the pre-test or upon receiving the unit where pre-tests are not applicable or are not yet available, the student counsels with one of a team of instructors assigned to the program, and together they select from the syllabus those learning activities which will help the student exhibit terminal performance. If the pre-test shows that the student can already demonstrate the terminal behaviors, he will be allowed to omit it and concentrate on those he cannot demonstrate.

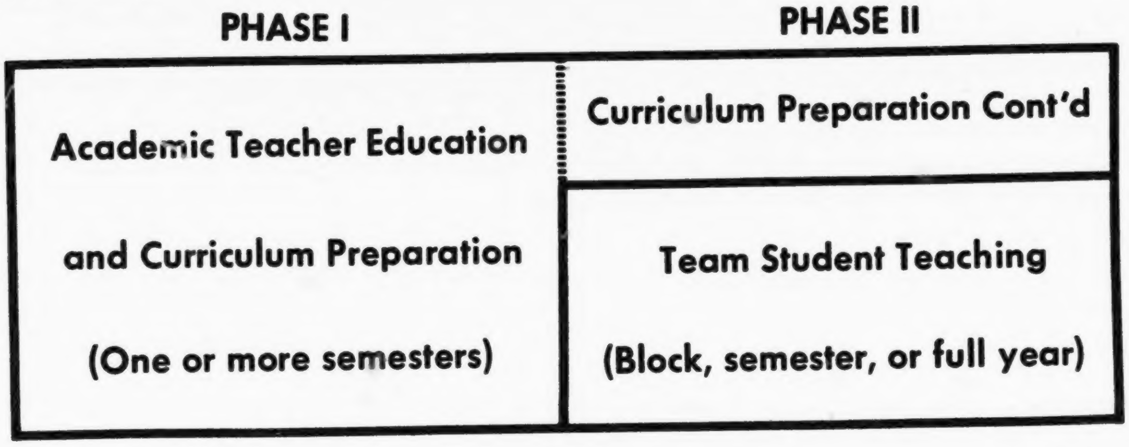
PHASE I
PHASE II
Academic Teacher Education
and Curriculum Preparation
(One or more semesters)
Curriculum Preparation Cont'd
Team Student Teaching
(Block, semester, or full year)

Figure 1

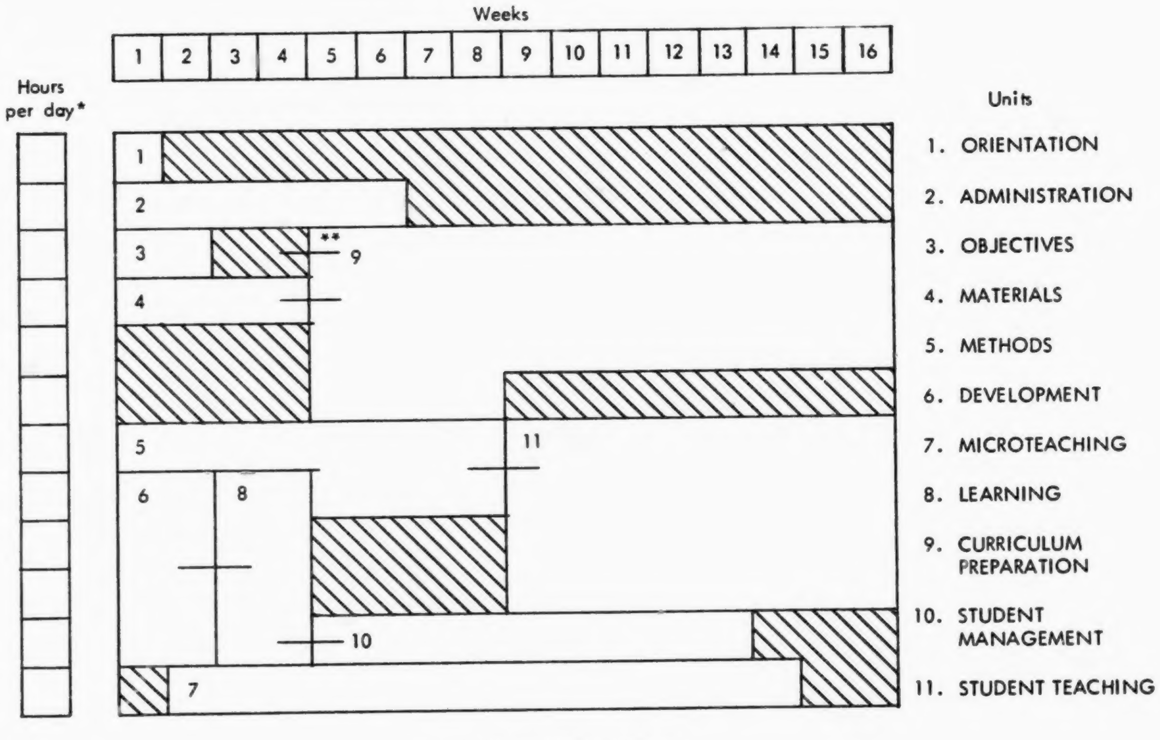

Figure 2: COURSE LAYOUT

*This is intended to indicate the proportionate amount of time required for the various units; e.g., during the first week a student might spend an hour per day on units one through five and four hours per day on unit six.

**Arrows are used to indicate the prerequisite nature of some units.

Students work through suggested learning activities individually or in small groups. The learning activities for a given objective are those which most effectively promote the specified behavior of the objective and are therefore appropriately diverse. For example, learning activities include observations in elementary, secondary, and special education classrooms. Single-concept lessons are micro taught both with and without videotape recording playback. Interaction analysis of the student's own behavior and other teachers' classroom behavior is required. The use of a Remote Information Retrieval System allows our trainees to hear recorded audiotapes with or without accompanying visual materials. Straight-text and programmed reading materials are assigned, and lectures are scheduled when necessary.

When the student finishes the required learning activities for a given objective, he takes a test designed to assess his attainment of the objective. These tests include a wide variety of activities and formats as required by the objective and are not limited to paper-and-pencil devices. If the student's performance is satisfactory, he moves to the next objective. If his performance is not satisfactory, he meets with one of the faculty members to identify additional learning experiences. A trainee may not certify until he accomplishes all objectives according to the established criteria.

While mastering the objectives which are necessary for effective instruction, the trainee is teamed with one or two other students in his subject-matter specialty, and together they prepare curriculum materials to be used when they student teach (see Figure 1). Their overall objective here is to prepare materials which will allow them to individualize instruction. They write behavorial objectives, design and prepare learning activities, and pre- and post-test instruments. Some of the materials are completely programmed. During the preparation of curriculum materials, observations are made in the classroom in which the team will student teach, and materials are pre-tested with secondary students.

Phase II: Student Teaching

In Phase II (see Figure 1) trainees are assigned as a team to a cooperating teacher in the public schools for the student teaching experience. Our students presently spend one-half day for eight weeks. We anticipate a future arrangement where both the kind and duration of student teaching assignment could be individualized with alternatives such as full-year or part-year internships, teaching in multiple kinds of classrooms in either rural or urban schools.

Curriculum materials used in student teaching are those previously prepared by the team. The same college instructors who supervised

Phase I supervise the student teaching experience. Students continue to prepare and revise curriculum materials as they use them in the classroom. Students also micro-teach before videorecorders to improve needed teaching behaviors.

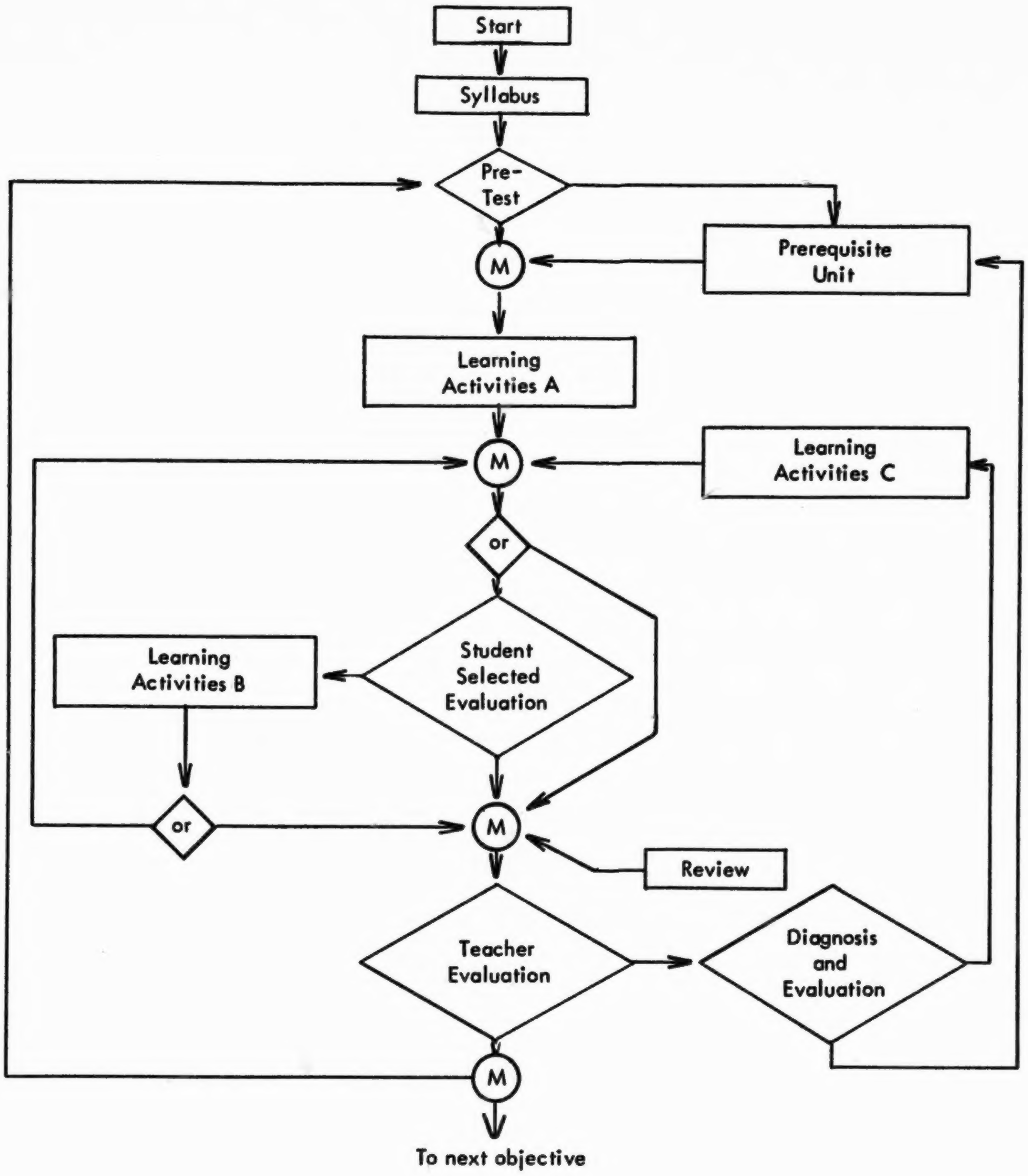

Figure 3

ADVANTAGES OF THE PROGRAM

At the time of this writing, the experimental program at Brigham Young University had been in operation for four semesters, during which time more than sixty secondary teachers had been trained. Approximately one-half were then teaching in the public schools, the other half (not dropouts) were continuing graduate work. We have not yet collected follow-up data on our graduates except through interview with them and their employers. As a result of these data and observations we have made, the following strengths of the program seem apparent to us.

The main advantage this program has over others, as we perceive it, is in that it has forced us to practice what we have been teaching. It has forced us to individualize our instructions; to analyze, using the tools available, our teacher-pupil interaction and to do something about it; to concern ourselves with the self-concepts of our students.

We have summarized some of the strengths of our program in the following list:

1. The program combines theory and practice.
2. Recommendation for certification is based on ability to perform specified behaviors.
3. Students accept more responsibility for their work in this kind of program.
4. The program combines and is using many of the best methods for teacher education, such as inquiry training, interaction analysis, micro-teaching, curriculum design.
5. The program takes into account individual differences, allowing the students to progress at their own best pace.
6. Students are team taught and work as a team; thus, they are given the opportunity to teach in large and small groups and to individualize as they student teach.
7. Areas of unnecessary overlap in the professional sequence of courses have been eliminated.
8. The program requires and results in an effective inservice training program for the cooperating teachers with whom we work.
9. Team student teaching, by decreasing the number of classroom stations, allows us to be more selective in assigning classrooms and in assigning the very best cooperating teachers.
10. Activities such as micro-teaching, interaction analysis, and team

student teaching reduce the possibility of a student teacher's learning from one poor teacher model and thus perpetrating the weakness of our present education system.

11. The graduates seem to differ in their positive attitude toward themselves as teachers and toward the profession of teaching.

Chapter VII

Emerging Roles of Supervising Teachers - A New Staff Level*

> Supervising consists of a highly complex set of behaviors, requiring special skills, understandings and knowledge. Yet, when divested of its trappings, the cant and mystique that ordinarily surround it, supervising is nothing more nor less than teaching. . . . it is useful to think of supervising as a special type or subcategory of teaching.[1]

A student teacher traditionally has two supervisors: the teacher who works with him in the school classroom, usually called the supervising or cooperating teacher, and a person from his college who serves as a kind of middleman between the student teacher and his college, usually called a college supervisor.

The Role of the College Supervisor

The college supervisor assumes a liaison role between the student's college experiences and his school classroom experience. It is his job to integrate the student's activities in the field into his total college education program. Whether such integration takes place successfully can have a direct bearing on the student's success or failure.

The basic responsibilities of the college supervisor have been described in *The Handbook for Student Teaching*, a publication of the South Carolina M-STEP program.

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*By the Project Director and Staff.

[1] Hans C. Olsen, "Innovation in Supervision Today," *Partnership in Teacher Education* (Washington, D.C.: American Association of Colleges for Teacher Education and the Association for Student Teaching, 1967), p. 230.

It states that the college supervisor should help select the schools where student teaching takes place, and should become acquainted with the educational programs and instructional personnel of the schools. He is expected to help the supervising teacher and student teacher achieve a good working relationship and serve as a resource person for both. He should discuss with the supervising teacher the needs and assets of prospective student teachers, and should function as a college contact man when supervising teachers request help in planning and evaluating students' work. His responsibilities include regular visits with the student teachers, holding scheduled conferences with them and their supervising teachers to evaluate progress, and counseling student teachers on personal and professional problems.

The Supervising Teacher

"Supervising teachers must have special skills and competencies beyond those required for effective classroom teaching," says the National Commission on Teacher Education and Professional Standards. "Supervising a neophyte requires skills in analysis and evaluation of teaching, and knowledge of the nature of teaching."[2]

As described in an M-STEP produced *Handbook for Student Teaching*,[3] the supervising teacher's functions are to:

Become acquainted with the organization and procedures necessary to assure a well-balanced student teaching experience

Familiarize himself with the background of the student teacher under his supervision through materials furnished by the college and through conferences with the college supervisor

Accept the student teacher as a beginner, understanding that growth in acquiring teaching skill develops gradually, and guide the student teacher in taking increasing classroom responsibilities as rapidly as his ability warrants

Demonstrate successful teaching techniques

Exemplify professional attitudes and interests

Provide the student teachers with background information concerning the pupils on the classroom

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[2] Joint Committee on State Responsibility for Student Teaching, *Who's in Charge Here?* Washington, D.C.: National Commission on Teacher Education and Professional Standards, 1966).

[3] South Carolina M-STEP, *Handbook for Student Teaching* (Columbia, South Carolina: State Department of Education), 1967.

Involve the student teachers in varied experiences, providing opportunities for them to use teaching techniques consistent with the stated objectives of the participating college and the cooperating school

Assist student teachers in developing positive and constructive approaches to classroom control. (However, the supervising teacher is legally responsible for the pupils at all times)

Assist the student teacher in planning and evaluating his work

Give continuous appraisal through encouragement as well as constructive criticism, and help with the evaluative process at the end of the student teaching period

Hold regularly scheduled conferences with the student teachers; plan for three-way conferences with the student teachers, college supervisor and the supervising teacher to evaluate student teacher's progress

Guide the student in carrying out college policies and regulations, and keep the college informed of the student teacher's progress

With the assistance of the principal and the college supervisor, arrange for the student teachers to observe in other classrooms, and on some occasions in other schools.

Problems of the Supervising Teacher

If "student teaching is probably the most important single experience in a prospective teacher's professional education,"[4] then those who supervise that experience are a crucial element in every teacher education program. Yet few supervising teachers have had any formal preparation for this admittedly vital function.

> Most classroom teachers have had no special preparation in teacher education . . . . Most supervising teachers are busy fulfilling their obligations to their schools and are seldom freed from these obligations to be able to keep up with the current thinking and research related to teaching. Their role in a student-teaching program is not always clear to them . . . even a cursory survey reveals that only a small proportion of teachers have had any

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[4] *Handbook for Student Teachers*, (College Park: University of Maryland).

kind of formal preparation for this important role.[5]

The most serious problem confronting the typical supervising teacher is lack of preparation for the job. Ironically enough, while the supervising teacher is in the best position to help the student teacher grow and progress - perhaps more so than any professor in the student's academic environment - there has been virtually no effort to prepare the supervising teacher for the important role she plays. In fact, in too many instances, the supervising teacher is not given any help in her work with student teachers, either by the school system or by the college from which the student came.

This situation is compounded by the fact that there is a dearth of inservice education programs designed to improve supervision. Where such educational experiences are available - either in the form of seminars, workshops, conferences, or structured graduate programs - rarely is the supervising teacher given released time to attend them. The importance of released time for this purpose was clearly revealed in the Maryland M-STEP program. The funds which M-STEP made available for this purpose enabled supervising teachers to attend regional and national conferences, to make interschool visits, to plan activities for and with the student teachers, and to engage in a variety of professional experiences not possible for a public school teacher. "One of the most appreciated aspects of the Maryland M-STEP program was the granting of released time for members of the Kemp Mill faculty."[6]

Can We Develop A New Professional Role?

> Some teacher educators are considering the development of a high level teacher classification, similar to the affiliated specialist in the field of medicine. In addition to being a practitioner, this highly trained medical counterpart of what we really want in teacher education holds a part-time position on a medical school faculty or research team, and/or directs clinical learning experiences. Very interestingly, the development of this type of medical specialist is not left to chance or accident. His is a planned program, extending from the time of graduation from medical school through his years of post-graduate specialization. This man has

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[5] Joint Committee on State Responsibility, *op. cit.* p. 7.

[6] Maryland M-STEP, *A Final Report*, 1968.

Other needs cited by supervising teachers in the Kemp Mill Center, which were met by M-STEP, included more classroom aides, more audiovisual equipment, financial remuneration for supervising teachers to acknowledge their increased work load. Experience in the Maryland M-STEP program showed that teachers are anxious to have realistic and professional teaching loads which enable them to make an effective contribution to their profession.

> chosen to serve his profession in a dual role, and still more interestingly, an intensive training program has been provided which will assist him to do this.
>
> A comparable person at the master teaching level also would serve a dual role: (1) this individual would be a superb performer in the classroom, and (2) would know how to prepare new teachers.[7]

The services of this type of teacher are vital. Fortunately, such individuals are available, but multitudes are needed, and these needs must be met. Some beginnings in this direction can be detected.

In his list of suggested differentiated teacher levels,[8] one well-known teacher educator envisages a top professional person whose title would be Instructional Specialist. Suggested qualifications for this individual are as follows:

> "This specialist would be a Professional Teacher who had (1) served a specified number of years as a full-fleged professional teacher, (2) completed a year beyond the master's degree of specialized preparation directly related to this role, and (3) been chosen by the school to become an instructional leader for a group of professionals serving at various subordinate levels. The profession would also expect the Instructional Specialist to become an expert in (1) *directing the learning of prospective teachers*, (2) diagnosing learning and teaching problems, (3) using the results of research, and (4) studying and evaluating curricula in his own field."

It is interesting to note that the dual role of superior classroom teacher and teacher educator is attained through specialized preparation and experience rather than through performance appraisal alone.

The concept of a career level master teacher who is a superb classroom performer is far from new, nor is the idea at all innovative to expect supervising teachers to possess such qualifications and stature. The Andrews concept of the Professional Teacher level clearly embraces a dual role: that of top level classroom performer and leader of an instructional team, and the role of a qualified teacher education specialist who has become an expert in "directing the learning of prospective teachers." Providing professional development opportunities for this level of instructional service is a large order, and one which should engage a large portion of professional effort in the nation's state and local agencies and institutions.

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[7] From "The M-STEP Idea," an address by Howard E. Bosley, May 1967, at Lansing Michigan.

[8] L. O. Andrews, "A Curriculum to Produce Career Teachers for the 1980's" *Theory Into Practice*. (Columbus, Ohio, College of Education, Ohio State University, 249 Arps Hall, 1954 N. High Street, December 1967), pp. 238-9.

The list of position levels suggested by Andrews includes:

Instructional Specialist
Professional Teacher
Provisional Teacher (or Associate Teacher)
Assistant Teacher
Intern
Teacher Aide
Clerical Aide

An interesting developmental ladder leading to the Professional Teacher level (or career teacher status) includes the following experiences:

Internship, during which time the teacher is officially employed (half-time) by the school, with limited certification.

First Year Residency, on two-thirds to four-fifths of a normal load.

Second Year Residency, on a carefully planned full load.

On the national scene not much more than lip service has been given to providing graduate school programs of the necessary breadth and sequence for developing capable performers of the type described above. Until quality programs are designed in quantity leading toward this end, most of the things we say in conferences, or write for publication are a waste of time. Though it will help to offer summer courses devoted to the supervision of student teaching, and to provide field-based inservice development programs on the same topic, these efforts fall short of meeting what is probably the greatest need in American teacher education today.

Colleges and universities must find ways to prepare and offer curricula which will develop career professionals who are superb classroom performers, and who are teachers of teachers. Clearly, the task involves preservice and inservice facets, and will require school-university-state collaboration.

M-STEP Has Helped Strengthen the Education of Supervisory Personnel: Some Examples

Each state in the M-STEP compact has turned its attention toward strengthening the skills of those who supervise student teaching. Some have produced printed and video materials for this purpose. Some have conducted meetings, seminars, and workshops where consultants and practitioners held meetings, shared ideas, and found solutions to problems confronting them. Several states developed dynamic new approaches both to college supervision and to the professional growth of the supervising teacher.

Examples of M-STEP's Educational Program for Supervisory Personnel

A Michigan teacher educator writes:

> Selection and preparation of supervising teachers and college supervisors are significant factors in the development of sound student teaching programs. The classroom teachers, school administrators and college faculty who are assuming new and unique responsibilities in the teacher education partnership must be provided with sophisticated, well-organized experiences which will enhance those understandings and perceptions which may reasonably assure the competence necessary for effective supervision.[9]

In West Virginia, two inservice courses were designed for supervising teachers at the M-STEP Pilot Center. Supervision of Student Teaching 906, Section I, was designed for all supervising teachers in the M-STEP program during the first semester of 1967-68 and carries twelve hours of credit. Supervision of Student Teaching 906, Section II, was designed for supervising teachers who are working with student teachers of the M-STEP program for the first time.

Supervision of Student Teaching Advanced 907, is designed for those supervising teachers who have been previously enrolled in 906, and carries six hours of credit.

Objectives of the West Virginia Inservice Program

A. To provide an orientation period for student teachers with respect to the nature of their opportunities and responsibilities during student teaching.

B. To acquaint the student teacher with the philosophy and practices of the cooperating school systems.

C. To provide a forum for the exchange of ideas and the discussion of common problems among students from the five cooperating teacher education institutions.

D. To aid the individual student teacher to develop further competencies, to reflect and draw on the teaching situation in order to develop essential teaching skills.

E. To provide experiences which enable the student teacher to relate theory to practice.

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[9] Edward L. Ruman, "Inservice Education of Supervising Teacher and College Supervisors," *Partnership in Teacher Education* (Washington, D. C.: American Association of Colleges for Teacher Education and the Association for Student Teaching, 1967), p. 270.

F. To provide activities which stimulate and continue the professional growth of the student teacher.

Inservice education of supervising teachers is an integral part of the student teaching program at Maryland's Kemp Mill Center. One of its activities was a workshop on the Supervision of Student Teachers, during which the supervising teachers compiled data on their experiences, both negative and positive, during the Center's first year of operation. Based on these data, participants developed recommendations for the year ahead. A position paper entitled "Inservice Experience of the Faculty" summarized findings and recommendations, Among the topics explored were: "The Supervisory Role of the Cooperating Teacher"; "Analysis of Teaching"; "Professional Growth Opportunities." The latter category described many avenues which the Center, in cooperation with the University of Maryland, used to increase the professional know-how of its supervising teachers. These approaches included college and university courses for credit, workshops, seminars, and individual conferences with the college coordinator or a consultant, on- or off-campus group discussions, meetings between supervising teachers and former student teachers who had completed a year of teaching, working with teachers' organizations, and providing teachers with released time, as well as paying their expenses to attend meetings of the Association for Student Teaching, National Commission on Teacher Education and Professional Standards and other pertinent groups.

The Kemp Mill Center also gave teachers the opportunity to observe other supervising teachers at work in classrooms with student teachers. The school prepared and distributed helpful printed materials and developed a professional library within the Center. It also provided each supervising teacher with a subscription to the *Journal of Teacher Education*.

The education of supervising teachers is woven through the entire fabric of the Twin Valley Living Learning Center, a Michigan M-STEP Project. According to the director of this student teaching center, the supervising teacher may be more insecure than the student teacher and needs carefully designed assistance, especially in the early stages of the supervising assignment.

The director of the Center spends much formal time with the supervising teachers - approximately 600 hours in the course of a semester. As part of Twin Valley's inservice program, the supervising teachers meet every other week to discuss problems and suggest improvements in the student teaching process. During one of these meetings, the teachers decided to produce their own student teacher handbook, feeling that standard institutional handbooks could not be adapted to the program in their particular school district.

The Twin Valley Center has also arranged a graduate course for supervising teachers, which is taught by four institutions.

Inservice instruction for college supervisors was stressed by South Carolina M-STEP, which held three workshops on interaction analysis, varying in length from one to three days, calling on consultants from Duke and South Carolina University. South Carolina is also planning a one and one-half day institute for all college supervisors of student teaching in the state. Participants will explore more deeply the use of interaction analysis as a way of helping student teachers examine the teaching-learning process. The meeting will include a work session during which participants will use videotaped and other materials to observe and classify the transactions that occur.[10]

In addition to the achievements at Twin Valley, Michigan M-STEP has undertaken other projects to improve supervision. Regional meetings were held to develop minimum standards for the selection of supervisory personnel, and four regional inservice meetings for supervisory personnel are planned. Supervising teachers as well as student teachers are invited to attend meetings of the regional councils and to present their views and needs. Michigan M-STEP has come forward with some recommendations for the improvement of supervision. Among these are:

- When other factors are equal, student teachers should first be assigned to supervising teachers who have completed a master's degree.
- Universities should grant tuition-free graduate-level courses in supervision of student teaching, for credit.
- A cooperating teachers' handbook should be developed.
- The role of the cooperating teacher should be defined.

Michigan's activities in the area of supervision have come about as a result of the unique cooperative structure of its state M-STEP project (see Chapter II). A valuable dialogue between the public schools and the institutions of higher learning has begun. Because of this idea exchange and cooperative planning, and the mutual respect it has created between these groups, they are confident that many recommendations of its committees will be carried out.

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[10] During late 1968 and 1969 South Carolina continued its inservice development activities for supervising teachers and other personnel under a Short-Term Project Contract with the M-STEP Central Office. A report of this project will be included in a later volume.

Toward A Specialized Curriculum

It is not the purpose of this section to suggest details of content for courses which prepare supervising teachers. A theme of much of the M-STEP stresses the existence of strong capabilities of personnel in colleges and schools for planning curriculum designs of this type. Very probably, statewide planning groups such as those structured by the M-STEP operation could successfully devote creative energies in this direction. However, partially as a result of the M-STEP experience, some general observations may not be out of order.

The content of seminars and direct experiences intended to aid supervising teacher courses, should be broadly based, whereas a tendency exists to stress a small number of new techniques and directions. A consideration of responsibilities to be assumed by the top level Instructional Specialist, as described by L. O. Andrews, or the dual function to be undertaken by the master teacher counterpart of the affiliated medical specialist as already presented, necessarily gives rise to notions about the complexity of the task. All this leads to the suggestion that programs of training for those who supervise and counsel teachers should embrace the total breadth of the teacher preparation curriculum, and should even go beyond it in extent as well as depth in several areas. One proposed model program for preservice teacher preparation includes (a) formulation of teaching objectives in behavioral terms, (b) selecting and organizing content, (c) selecting and executing appropriate strategies for the attainment of desired behavioral objectives, (d) evaluating learning outcomes, and (e) a demonstrated competence and willingness to accept professional responsibilities and service. The rich scope and potential embraced by this five-category program design is apparent in the context of the document[11].

Significantly, other model proposals have shown a similar breadth of professional training in teacher education. Teachers College, Columbia University[12] proposes five "areas of reality" as large items of content in the teacher preparation program. These are (a) organizing and using knowledge, (b) shaping the school, (c) teaching with strategy, (d) creating interpersonal climates, and (e) radiating a creative personality. The Michigan State University Model[13] included a developmental sequence: (a) tutorial clinical experiences, (b) an exploration of human learning capacity, (c) an analytical study of teaching, (d) team teaching, (e) the internship, and (f) residency entrance to teaching toward possible entrance into a Professional Institutional Leader stage.

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[11] G. Wesley Sowards, (Project Manager) *A Model for the Preparation of Elementary Teachers, Florida State University.* (Washington, D.C., U.S. Department of Health, Education and Welfare) 1968.

[12] Nicholas A. Fattu, *Nine Proposals for Elementary Teacher Education: A Description of Plans to Design Exemplary Training Programs.* (Washington, D.C., U.S. Department of Health, Education and Welfare, Office of Education) 1968. (Also Bethesda, Maryland, ERIC Document Reproduction Service)

[13] *Ibid.*

Plans such as these encourage joint school-college action in the use of high level supervisory-guidance personnel variously labeled Intern Consultant, Staff Associate, Clinical Professor, Clinical Counselor, Center Coordinator. The terminology used denotes a new concept of high level competence which is in process of being accepted as a requisite for a key position in America's teacher education programs.

Assuming the existence of a broad base, the content of preparation schemes for supervising teachers shows a careful selection of useful strategies and techniques of teaching. Evidence exists at this point which indicates serious inadequecies of in-depth treatment in typical situations. Johnson[14] reported minor fractions of the nation's programs in student teaching utilize techniques such as interaction analysis, systems of strategies in teaching, and educational objectives material. The same survey, reveals data showing minimal use of important aids to teacher education, such as micro-teaching, simulation, and other video-based processes. Techniques providing individually prescribed instructional opportunities for student teachers are little better than rare. These processes and techniques constitute examples of significant content which merit practical utilization in programs designed to develop top level staff for supervising student teachers.

The same survey[15] found that only 27 percent of the institutions responding offer a graduate course in the supervision of student teaching. An interesting outgrowth of model programs described by Fattu[16] was a recognized need for a retraining process through committee involvement and workshops for faculty members who assume roles in newly developed plans for teacher education.

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[14] James A. Johnson, *A National Survey of Student Teaching Programs*, (Project No. 6-8182 Bureau of Research, U.S. Office of Education. ERIC Document Reproduction Service, Bethesda, Maryland, 1968).

[15] *Ibid.*

[16] Fattu, *op cit.*

M-STEP PUBLICATIONS FOR THE EDUCATION OF SUPERVISORY PERSONNEL †

The Handbook for Student Teaching, prepared by the South Carolina M-STEP, devotes several pages to supervision. It describes the supervision responsibilities of the director of the student teaching program, of the college supervisor, the school superintendent, school principal, director of instruction, and the supervising teacher. It lists criteria for the selection of supervising teachers and touches upon their role in evaluating student teacher progress.

Guidelines for Student Teaching in Florida, published by the Florida M-STEP, also cites the responsibilities of those who supervise, including the roles of county and state supervisory staffs.

Certification and Compensation for Supervising Teachers, a survey administered by the Florida M-STEP, reveals points of view of various segments of the education profession regarding such certification and compensation. Because of the increasing need for qualified supervising teachers, the Florida Teacher Advisory Council decided to explore ways in which to attract a greater number of teachers who meet certain supervisory criteria. This survey is a first step in that direction. It includes a list of criteria for selecting supervisory teachers.

Some Relationships Between Objectives and Situation Variables in Professional Laboratory Experiences, a discussion paper published by the Florida M-STEP.

Multi-State Teacher Education Project, a newsletter published by the South Carolina M-STEP, October 1967 to February 1968.

Position Paper on Student Teaching Programs, published and circulated by the Michigan M-STEP to generate discussion and thought by school and college personnel interested in professional laboratory experiences in student teaching. (Also reprinted as Chapter IV of the current volume.)

Survey of Attitudes and Opinions of Supervising Teachers, made under the auspices of the Michigan M-STEP, reports results of questionnaires sent to supervising teachers.

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† For additional detail, see Appendix of *Teacher Education in Transition*, Volume II.

VIDEOTAPES FOR THE EDUCATION OF SUPERVISORY PERSONNEL

Videotapes for the Education of Supervisory Personnel

Roles in Student Teaching. (MS8); (Q2); 30 minutes. Prepared by the South Carolina M-STEP. This videotape attempts to visualize contemporary theory about selected aspects of the role, relationship, and responsibility considered significant for each of the following, as they are involved in student teaching: student teacher, pupils, the supervising teacher, college supervisor, other college personnel, the principal, school superintendent, and other school personnel.

Evaluation in Student Teaching. (MS19); (Q2); 30 minutes. Prepared by the South Carolina M-STEP. Evaluation in student teaching proceeds along many lines, both in the kinds of processes employed and in the types of instruments used. This videotape is one example of a form of self-evaluation, and evaluation by the education professor is the culmination of experiences gained by each student through the use of a Pupil Inventory Form in planning for and working with pupils during the student teaching experience. The student teachers discuss the problems they encountered and evaluate their performance in solving these problems.

Lesson Planning . . . Is It Necessary? (MS23); (Q2); (A1); 30 minutes. Prepared by the South Carolina M-STEP, this videotape shows a class of student teachers after they have returned from their internship, discussing with their professor their findings on the importance of a lesson plan in the light of their recent firsthand classroom experiences.

Empathy in Student Teaching: Its Relation to Effective Learning. Part I (MS25); (Q2); Part II (MS24); (Q2). Prepared by the South Carolina M-STEP. Two 30-minute videotapes depicting the classroom experience of young student teachers. Part of these tapes show a complete teaching lesson. Other parts depict segments of lessons prepared and presented by student teachers. These tapes are especially helpful to supervising teachers as they work with students.

(Accompanying these South Carolina videotapes are study guides designed for use by student teachers and others using the tapes.)

The Role of the Cooperating Teacher (Elementary). (F); 10 minutes. Prepared by the Utah M-STEP in cooperation with Westminster College and Salt Lake City School District. The student teacher is shown planning with her supervising teacher, actually teaching, and then evaluating her performance.

The Role of Cooperating Teacher (Secondary). Prepared by the Utah M-STEP in cooperation with Westminster College and the Salt Lake City School District. A companion film to that described above. Shows a secondary student teacher planning, teaching, and evaluating.

Chapter VIII

Micro-teaching and Interaction Analysis in a Teacher Education Program*

THE current paper describes a program implementing two relatively new approaches to the study of classroom behavior, namely micro-teaching and interaction analysis. Micro-teaching is a scaled-down teaching encounter initiated at Stanford University to serve as a research and training instrument in working with both beginning and experienced teachers. The Stanford approach to micro-teaching involves the presentation of brief lessons (5 to 25 minutes) in a subject area to small groups of pupils (up to 5) in a laboratory-type setting. Emphasis is placed on intense supervision, video-tape recording for immediate feedback, and the collection and use of student feedback (Allen, 1967)[1]. Our use of the micro-teaching approach does not involve the utilization of student feedback, nor is it limited to small groups of 5 or fewer students functioning in a laboratory situation. We were concerned with teacher behavior in a public school classroom where a teacher is working with larger groups (5 to 15 students), including some interactions with an entire class. The scaling-down of the time segment for the micro-lesson is retained. Also, narrowing the focus to a particular skill, such as motivating students by the use of verbal reinforcements or concern with a teacher's questioning strategies, is characteristic of our use of the micro-teaching approach. Further, we were interested in combining micro-teaching with the Interaction Analysis technique. Interaction Analysis (IA), developed by Amidon and Flanders (1963)[2], is a descriptive instrument for capturing teacher-pupil verbal behavior patterns during classroom interaction.

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* Prepared by Douglas L. Minnis and Kenneth Shrable, University of California, Davis, for use by the Multi-State Teacher Education Project.

[1] Bibliography, Item 2.

[2] Bibliography, Item 1.

Micro-teaching and IA, when combined in a teacher education program, provide a way to identify the current pattern of classroom interaction used by a teacher. Theoretical patterns can be formulated, practiced, and recorded for studying the teacher's actual behavior and comparing it with that anticipated in planning the lesson.

For the most part, the teacher trainees with whom we have worked seem sincerely committed to the task of improving their teaching skills and desire to do the very best job possible. The task facing the prospective teacher, as typically viewed by the candidate, is what will I teach (content) and how will I teach it (method). Usually the latter concern is the dominant one in the mind of the beginner. The task facing the teacher educator is to translate this concern into competence, the particular area of competence being a set of attitudes and overt behaviors to be enacted in the public school classroom. This transformation of the college student into a practicing teacher involves, at least in theory, a major amount of behavorial change. Teacher candidates view the necessity of changing their behavior with the same doubts and fears that most of us experience in the face of new situations demanding competencies which we possess at a minimal level or not at all. In order to change, they tend to desire a supportive environment where risks are diminished. However, in the typical pattern of teacher education, behavior change is expected to occur in an environment laden with evaluation and threat. Ordinarily, it is expected that a supervisor will walk into the student teacher's classroom at varied times for the purpose of making criticisms and suggestions to the student teacher as a means for improving performance in teaching. Generally, the candidate hears and feels the criticism so deeply that any ability to "hear" suggestions vanishes. In addition, the supervision visit is associated with evaluation. As a consequence, the bright student teacher never attempts a lesson where any risk is involved and risk is part and parcel of behavior change. From the evidence accumulated with psychotherapeutic measures aimed at behavior change, Carl Rogers (1961, p. 55)[3] describes personal relationships which facilitate change as being characterized by the relative absence of threat and evaluation. Such an environment, Rogers contends, allows the individual to reach the point where he recognizes that the locus of evaluation and the center of responsibility for his behavior lies within himself. When lack of threat of external evaluation is coupled with positive regard and acceptance of the other person then the individual feels free to be himself and this climate permits and promotes behavior change.

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[3] Bibliography, Item 6.

As a means of facilitating change in the classroom behavior patterns of teacher candidates, we have adopted a procedure allowing a high level of autonomy and privacy in the person's judging of his own behavior. However, it should be noted that autonomous learning and internalized evaluation of one's own behavior implies the ability to conceptualize both what one is now doing and what one hopes to do in the future. It is necessary for the student teacher to have a conceptual framework for studying his own behavior. There must be a means of capturing classroom behavior for further analysis. It must be a self-help system in order to insure privacy and a low level of threat by removing evaluation from external sources. Inherent in this procedure is the philosophy that the role of teacher trainer or supervisor should be shifted from one of initiating criticism or evaluation to one of being responsive to questions which teachers develop about their instructional behavior.

Micro-teaching and Interaction Analysis, as we are using them, allow the teacher to experiment with new behavior in the privacy of his own classroom as well as providing him with a feedback system which will enable him to assess his own progress. As a means of providing the teacher candidate with skill in conceptualizing the classroom process, he is introduced to: (1) Interaction Analysis, (2) the micro-teaching concept, (3) a generalized planning model, and (4) the concept of teaching strategies. The Interaction Analysis system has been described adequately in the manual by Amidon and Flanders (1963)[4] and the concept of micro-teaching has been treated at length by Allen (1967)[5]. The concept of a generalized planning model and teaching strategies are presented below.

THE PLANNING MODEL

Before a lesson can be practiced with micro-teaching or analyzed with interaction analysis, it must be planned carefully. This planning should be done in terms of the behaviors that the students in the classroom need to acquire and practice. Not only does the planning have to be done in terms of what the student is to do, but the teacher must make explicit her behaviors needed to engage the students in the activities planned and she must be prepared to engage in responsive behavior aimed at strengthening the elicited behavior when children answer or follow the instructions given. The model in Table 1 provides a simple way for teachers to develop a planning strategy.

The model is divided into two parts: the preactive and the interactive phases of instruction (Jackson, 1966)[6]. The preactive phase involves consideration of those behaviors and activities which can be planned before the class starts. They can be formulated at home or in the study whereas the interactive phase involves those things which cannot be planned in detail because they are dependent on the events that take place once the lesson is started. In the preactive phase the teacher has two tasks: (1) First, from careful diagnosis of her students' performance in the past and the curriculum she is teaching at present, she devises behavioral objectives. This we have labeled "Planned Student Behavior" (Column 1 in Table 1). (2) Then, if the teacher wants the students to behave in a certain way, she must plan the teacher behaviors required in the second step, (Column 2 in Table 1), namely "Teacher Initiatory Behavior." Teacher initiatory behavior refers to the way the teacher plans to begin the lesson.

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[4] Bibliography, Item 1.
[5] Bibliography, Item 2.
[6] Bibliography, Item 4.

Table 1
A MODEL FOR PLANNING A TEACHING STRATEGY

Preactive		**Interactive**	
PLANNED STUDENT BEHAVIOR	TEACHER INITIATORY BEHAVIOR	STUDENT RESPONSIVE BEHAVIOR	TEACHER RESPONSIVE BEHAVIOR
If the teacher wants the student to: (state in behavorial terms). Then →	The teacher must provide a focus which, Cues →	The students to behave, To which →	The teacher must respond.
Example: Student is to list things he saw in a 5 minute film.	The teacher plans the question: "What are some of the things you saw in the film?" (4)	Student responds by listing ovservations. (8)	Teacher responds by accepting student's ideas. (3)

It may be the provision of information, asking a question, giving instructions, or any other technique that the teacher employs to get the interaction between herself and the students underway in this lesson. Her behavior cues the student to respond and the anticipated teacher-student interaction begins. At this point, the teacher is involved with the student in an interactive process. In general, it is expected that reciprocal influence will be expeted in the interactive phase. The teacher will directly influence the student and, in turn, the teacher will be influenced by the student's behavior. Responsive behavior can be planned in general in the preactive, but must be performed in the interactive. Since it is impossible to anticipate all possible student responses, it is necessary to plan a flexible style of teacher behavior. For example, the teacher may decide that for a particular lesson the desired type of responsive behavior is that of acceptance of student ideas. However, when the lesson is presented a good number of the student responses may be irrelevant to the objectives of the lesson or the student responses may provide an opportunity for the teacher to give more data through lecture. The instructional decisions which the teacher makes at such points during the interactive phase determine how closely the lesson will follow the pattern selected in the preactive phase. When the teacher is using the planning model presented in Table 1, it is necessary to select a teaching strategy for the realization of the objectives of a given lesson. Each strategy consists of planned teacher initiatory moves, anticipated student responses, and planned teacher responses to student behavior. For our model of teacher education, we have designed a series of planning strategies which we have called teaching patterns.

TEACHING PATTERNS

The essential behaviors of the student and teacher in any lesson represent a teaching pattern. These teaching patterns are described in Interaction Analysis (IA) nomenclature for ease of communication. In the IA system (Amidon and Flanders, 1963)[7] numbers are assigned to ten observation categories. In this paper, teaching patterns are described by the numbers which refer to those observation categories. Teaching Patterns represent the essential moves derived from lessons which have been analyzed using IA. For example, one common teaching behavior is a 4-8-3 pattern (Flanders, 1967)[8]. The 4 represents a question, the 8 a student response, and the 3 represents teacher acceptance of the response. In practice this pattern would sound something like this: (Teacher) "What are some of the things you saw in the film, John?" (4). (Student) "An old fashioned rifle" (8), (Teacher) "Yes" (3). A single 4-8-3 sequence does not constitute a pattern. To label a segment of a class hour a "4-8-3" pattern implies recurring 4-8-3 behavior as the typical or dominant behavior during this time segment. A second example is a 6-10 pattern which represents instruction (6) followed by a period of silence in which the student carries out the instructions (10). If the teacher uses two patterns in a conjunction, i.e., a 6-10 and a 4-8-3 pattern, it would sound something like this: "Boys and girls, I want you to pour the liquid from the test tube into the flask" (6). This is followed by a period of silence as the students carry out the instructions (10). After the students have carried out

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[7] Bibliography, Item 1.

[8] Bibliography, Item 3.

the instructions reflected by the 6-10 sequence, the teacher asks "What are some of the things you observed?" (4) and the students respond by giving their observations which are labeled (8), the teacher's acceptance of the students responses are tallied as (3). This would complete one cycle of the combination of a 6-10 and a 4-8-3 pattern. If a teacher desired to raise the level of thinking about a topic from simple descriptive observation to a more abstract process of prediction, she might ask "What do you think would happen if we doubled the amount of liquid we poured into the flask?" (4). The students would then give their predictions (9) and if the teacher accepts these (3) the 4-8-3 pattern has shifted to a 4-9-3. This latter sequence is labeled 4-9-3 rather than 4-8-3 due to the fact that in IA nomenclature the response labeled "8" must be highly predictable. The "9" response indicates student answers reflecting their own ideas. To complete this particular lesson, the teacher might instruct the students to put in more liquid (another 6), followed by their performance of this task (another 10), and then ask if their observations bore out their predictions (4). With this last teacher response the 4-8-3 sequence is being initiated again. The total pattern described above would be labeled $\overbrace{6\text{-}10}$, $\overbrace{4\text{-}8\text{-}3}$, $\overbrace{4\text{-}9\text{-}3}$, $\overbrace{6\text{-}10}$, $\overbrace{4\text{-}8\text{-}3}$. Each of these five segments would take several minutes to complete. For example the 6-10 segment might take 5 minutes, the 4-8-3 segment 7 minutes, and the 4-9-3, 15 minutes. During each segment the pattern would reflect the predominant, planned behavior. It should be noted that there would be other types of teacher-student behavior occurring during these time segments. However, the predominant behavior would be captured in the above pattern. For example, a student may need to be disciplined (7), data may need to be given (5), or someone may tell a joke and the class laughs (9-10). These behaviors are not the predominant pattern for the segment in which they occur and, though important, are incidental to the lesson to be taught. If the pattern was replicated in a different setting, these unplanned behaviors would not necessarily occur.

One might ask whether IA patterns are actually necessary or even of value in planning a lesson. In fact, it might seem both simpler and clearer to merely describe the anticipated teacher-student moves verbally in making the lesson plan explicit. For example, instead of using the IA nomenclature such as 6-10, 4-9-3, 6-10, 4-8-3, as in the example above, why not have the teacher state these steps verbally during the preactive phase. The description of the lesson in the above pattern might go as follows. The teacher states, "I plan to give the students instructions for a science experiment, allow them time to carry these out, ask questions about specific points in the data, accept these responses, then move from a description of what happened to asking them to predict new events, accept these behaviors, return to instructions on testing their theories, and close with specific questions about the confirmation or disconfirmation of their predictions.'' Actually, IA teaching patterns represent a shorthand language to capture the above conceptualization. The teacher must engage in this verbalization and conceptualization of the teaching plan. However, when this is completed, the IA technique permits the teacher to

Table II
INTERACTION ANALYSIS MATRIX
SECOND EVENT

		1	2	3	4	5	6	7	8	9	10	Total
	1											0
	2			3	1				2			6
	3			15	22		5		12			54
	4				19				28	3	4	54
FIRST EVENT	5			3	2	18	2		4			29
	6						3				7	10
	7											0
	8		6	30	4	6			10			56
	9				1	2				10		13
	10			3	5	3						11
Total		0	6	54	54	29	10	0	56	13	11	233

Source: Amidon, E. J. and Flanders, N. A., *The Role of the Teacher in the Classroom* (Minneapolis, Association for Productive Teaching) 1967.

EDITOR'S COMMENT

The Flanders system uses ten categories of teaching behavior as follows:

1. Acceptance of feeling
2. Praise or encouragement
3. Accepting ideas
4. Asking questions
5. Lecture
6. Giving directions
7. Criticizing or justifying authority
8. Student talk-response
9. Student talk-initiation
10. Silence or confusion

The interaction Matrix (Table II) is keyed to the above ten categories in the manner indicated on the Matrix copy, e.g. an ascending left to right numerical order is followed in numbering the columns, and a top to bottom order is used in numbering the rows.

Preliminary to entering tabulations on the Matrix, Amidon and Flanders (Item 1 in the Bibliography) suggest listing paired numbers indicating the sequence of activity by category number. The first number of the pair will be inserted in that cell of the Matrix where the number of the row as indicated by the first behavioral category intersects the column which designates the second behavior.

If he is less than thoroughly experienced in the technique, the evaluator will wish to follow the Amidon-Flanders reference in some detail.

state the lesson outline with brevity and compare, with a great deal of clarity, the lesson as taught with the lesson as planned. The analysis of a teaching pattern involves asking for a great deal more information than the one, "Did the above types of teacher-student behavior occur during the class hour?" Pattern analysis asks, "Was the behavior occurring in the first time segment (approximately 5 minutes) predominantly 6-10?" In the complexity of classroom verbal interaction a number of other types of behavior would be expected to occur, as noted above, but the analysis of the teaching pattern will readily identify the predominant pattern of behavior. Pattern analysis quickly enables the teacher to determine not just whether she shifted to asking some specific observations (4-8-3) during the second time segment (approximately 7 minutes), but whether this was the predominant (or pattern) behavior of this portion of the lesson. The analysis should continue in this fashion through the entire class hour. The shorthand language of IA and Pattern Analysis enables the teacher to objectively tally and portray the movement of the lesson and to show the essential and recurring teacher-student moves. This can be done with little more time than that required to listen to an audio or video tape. On the other hand, relying solely on a verbal description of the lesson is difficult, cumbersome, and usually impossible as an approach to explicating the essential pattern or recurring behavior in a complex lesson such as that presented above.

It would seem reasonable to assume that quite a different result would be obtained if the teacher in the interactive process changed the previous pattern (6-10, 4-8-3, 4-9-3, 6-10, 4-8-3), to one consisting of 6-10, 4-9, 6-10, 4-9-3 behavior. In this latter instance, the initial 4-8-3, 4-9-3 pattern segments have been replaced with 5-9 behavior. In IA terms the teacher shifted from giving directions (6-10), to lecturing and providing her own ideas, followed by student initiated comments. The lesson as planned calls for the experiment phase (6-10) to be followed by a careful check of student observation by asking specific questions about the experiment (4-8-3). Once the data had been collected, the teacher planned to engage the students in hypothesizing (4-9-3). Assuming that the actual lesson followed the 6-10, 5-9, 6-10, 4-9-3 pattern combination, then the teacher has omitted the initial sequence of questions about specific data or observation and has attempted to move more directly to experiments testing higher level concepts. If the class proved to be more advanced in understanding than anticipated, this might prove to be a more effective pattern than the one previously planned. However, as Taba and Elzey (1964)[9] point out, a common error in teaching is that of attempting to shortcut the thinking process by lifting the level of dialogue too soon. This seems especially

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[9] Bibliography, Item 8

detrimental to slow learners. Fortunately, the analysis of patterns enables the teacher to observe the critical changes in teaching behavior and to make some evaluations of these changes with respect to their effectiveness in attaining lesson objectives. In the lesson under consideration, pattern analysis should enable the teacher to determine whether the deviations from the planned behaviors affected the lesson outcome. Clues as to the effectiveness of the behavior changes on the part of the teacher in the lesson are provided by the final sequence of behaviors (6-10, 4-9-3). In the planning phase, the teacher had anticipated specific observations, namely 6-10, 4-8-3, at this point of the lesson. The 4-8-3 pattern failed to emerge in the final time segment indicating that the students were not able to relate the last experiment specifically to the teacher's questions concerning the testing of their predictions.

An additional value of teaching patterns is that we anticipate that particular patterns once learned may have wide applicability across grade level and subject area. For example, consider again the 6-10, 4-8-3, 4-9-3, 6-10, 4-8-3 pattern combination used previously in a science class. Assume that a primary teacher has the following objectives. She wishes her students to read a particular story, and as a result, to develop observation skills, to enhance sensitivity to alternative ways the characters in the story might have behaved, and to read the story to check out their expectations. This observation, prediction, and verification lesson could be conceptualized as our 6-10, 4-8-3, 4-9-3, 6-10, 4-8-3 combination pattern above. The teacher might initiate the lesson by instructing the students to look at pictures included with the story (6-10), to report what they saw in the pictures (4-8-3), to predict themes or possible outcomes for the story (4-9-3), to read the story to see if their predictions are correct (6-10) and to discuss what they have read in relation to their own predictions and anticipations about the story (4-8-3). This applicability of teaching patterns to many grade levels and subjects makes them most useful to the classroom teacher.

MICRO-TEACHING

When the teacher has learned the essential moves in a teaching pattern, practice is necessary in order to achieve a high level of conceptual awareness of behavior and a high degree of flexibility in the use of patterns. Pattern practice is aimed at assisting the teacher to make interaction sequences during instruction, such as giving instructions (6-10), asking specific questions (4-8-3), and asking general or more divergent type questions (4-9-3) etc., explicit for practice in a wide variety of lesson types. The analysis of the sequences of a planned lesson hour enables the teacher to develop skill in movement from one type of pattern to another in response to the objectives of a particular lesson.

Generally, a teaching pattern would be determined by the objectives of a lesson. Only in "practicing" patterns would one allow "pattern" to control objective. During teacher training the candidate may desire to use the planning model to develop an objective suitable for practicing the use of a particular pattern. Having completed the preactive planning of a pattern, the teacher presents the lesson to a class and videotapes it. Later, in the privacy of the playback room she views and analyzes the tape. In the initial phases of training, the teacher needs enough time to be able to view the tape several times when necessary. During pattern practice, a systematic analysis of the lesson is possible because the teacher has a specific objective and a planned pattern. It should be noted that in order to utilize our planning strategy, the teacher must know IA, be able to tally accurately, put the tallies on a matrix, plot the primary pattern, and interpret the matrix. This enables the teacher to compare lessons as planned with lessons taught. This comparison is helpful in pinpointing areas which need further practice. For example, if instead of getting 8's as planned, the students responded with 9's, the teacher may have asked the wrong type of questions or phrased them in such a way that the children tended to give more divergent answers than anticipated. It is sometimes desirable to get creative answers, but when children are asked to make accurate observations by describing what they have just seen, then specific responses related directly to the data at hand are desired. Thus, the planned and the actual pattern can be used to identify specific skills which the teacher needs to practice in future work.

The ten categories of interaction analysis provides a great number of possibilities for describing teaching patterns. In addition, the present authors have devised a system for the classification of questions which makes it possible to deal with teaching patterns which include a consideration of levels of abstraction in thinking (Shrable and Minnis, 1969).[10]

IMPLEMENTATION

The implementation of the above approach to develop teaching skills is based on a number of assumptions. First, the teacher should recognize that patterns are not intrinsically good or bad. Rather, it is assumed that there are patterns which are better suited to accomplish a particular objective. Since there are many different educational objectives, the teacher's behavorial repertiore should include a wide variety of patterns. This implies that learning different patterns is a step in improving instructional skills. Another step would be that of learning to determine which pattern is best suited for a given objective. This can only be done by experimentation. For the classroom teacher, this experimentation involves planning and implementing a pattern and diagnosing student responses to assess whether the objectives of the lesson have been realized.

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[10] Bibliography, Item 7.

A second assumption is that teacher behavorial changes are facilitated when a teacher has the opportunity to maintain dignity and privacy while analyzing her teaching. When practicing new behaviors and analyzing videotapes of these lessons, the videotapes should be seen by no one other than the teacher who made them unless she requests someone to assist her. If the teacher is to attempt lessons which have potential risks of failure, she must have the assurance that her teaching performance is not being evaluated.

A third assumption is that the best laboratory for learning new teaching behavior is found in the public school classroom. In this way, new skills are learned in the context in which they will be used. This implies that a continuing staff development program is needed in every public school. As new curricula, objectives, and teaching patterns are developed, teachers need to have an opportunity to learn them and practice them in their classrooms. Learning these new skills cannot be accomplished through extension courses or summer school. If this idea holds for experienced teachers, it is also applicable for teachers in preservice education. Much more, if not all, of their professional preparation could best be done in the public schools where a laboratory is available for their use. This would also make the concurrency of the theory and the practice of teaching more of a reality.

A fourth assumption is that instructional procedures need constant analysis. Teachers should have feedback about the teaching they are doing on a continuous basis. Due to the complexity of the feedback process, this cannot be done adequately by an observer who can know only limited samples of the situation. The teacher is in the best position to know her objectives, the class, her teaching style and the place of a particular lesson in the total curriculum. Since the teacher is in this unique position, she also has the best opportunity to analyze the instructional program. In order to do this, she must have skills for providing analysis of teacher-pupil classroom interaction (IA or some other descriptive system), a record of the lesson (video tape or audio tape), and a systematic technique of planning her instructional program (teaching patterns and a planning model) in order to establish an anticipated or planned behavioral model which can be compared with the actual teaching process.

IMPLICATIONS

The purpose of teacher preparation is not to dictate to the student teacher specific responses to be made in the classroom. However, the responsive behavior of the teacher affects children's behavior. The teacher must be made aware that her decision about the type of responsive behavior she selects should reflect her own theory about how she influences student behavior in the attainment of objectives. We are assuming that teacher education should aim at helping the teacher make *explicit* her own theory of responsive behavior and to experiment in such a way that she establishes the best possible "fit" of technique and personal style. This experimentation is facilitated by feedback and analysis.

This view of teaching makes the teacher responsible for an ongoing analysis of the teaching process. It also requires that she learn new patterns of behavior. This suggests some researchable questions:

1. Can the teacher learn new behaviors, such as teaching patterns?
2. Can teachers learn to make explicit their implicit theory of how their behavior affects children?
3. Can teachers implement an explicit theory of responsive behavior in an interactive process?
4. Can teachers learn to analyze their behavior using video or audio tape and Interaction Analysis?

Two procedures are being used at U. C. Davis to investigate these questions. The first is the design of several research projects which will test these questions. The second is the implementation of a pilot program to field test the ideas. The pilot program was started in the fall of 1968, (Minnis, 1968)[11]. Six student teachers started their professional preparation in an elementary school. They were chosen at random from late applicants to the regular elementary program. Their backgrounds included a bachelor's degree and foundation courses in educational psychology and sociology. They had completed no methods courses. During the early weeks in the school, they observed classes in the morning and chose a teacher with whom they wanted to student teach. During the afternoon, they attended seminars in which they learned Interaction Analysis, teaching patterns and micro-teaching. Their methods courses were reorganized so that they were spread throughout the entire school year.

These student teachers will be in the same school for a full year. In the fall and winter quarters, they will teach in the morning, attend seminars in the afternoon, and view videotapes of their lessons. During the spring quarter they will teach full time. When they learn new teaching patterns, they will practice these and record them on videotape for further analysis with IA. When the student has completed the analysis of a lesson, she develops a series of questions about her instructional pattern. Both the process of search and the solutions to these problems are expected to be helpful in improving her ability to teach a pattern. If a question raised about a lesson is of general concern, it becomes the basis of a seminar. If it is not of general interest, the University supervisor or the public school staff assist the student teacher in identifying answers or procedures for further testing.

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[11] Bibliography, Item 5.

In this pilot program, the University supervisor never enters the student's classroom. Instead he spends supervisory time in a staff development program working with the supervising teachers in the public school where the student teacher is assigned.

Early evaluation of this program would indicate that this implementation of the combination of micro-teaching and Interaction Analysis is feasible.

BIBLIOGRAPHY

1. Amidon, E. J. & Flanders, N. A. *The Role of the Teacher in the Classroom.* Minneapolis: Association for Productive Teaching) 1967.

2. Allen, D. W. *Micro-Teaching: A Description.* Palo Alto: Stanford University, 1967 (Mimeographed Report).

3. Flanders, N. A. Interaction models of critical teaching behaviors. In E. Amidon & J. Hough (Eds.), *Interaction Analysis: Theory, Research and Application.* Reading Massachusetts: Addison-Wesley, 1967. Pp. 315-328.

4. Jackson, P. W. "The Way Teaching Is." *The Way Teaching Is: Report of the Seminar on Teaching.* Association for Supervision and Curriculum Development and the Center for the Study of Instruction. Washington, D. C.: National Education Association, 1966. Pp. 7-27.

5. Minnis, D. L. "Rebellion in Teacher Education: Requiem for a Fossil in White-Tie-and-Tails." Paper delivered at the conference of the California Association of Supervision and Curriculum Development. Fresno, California, November, 1968.

6. Rogers, C. R. *On Becoming a Person.* Boston: Houghton Mifflin, 1961.

7. Shrable, K. & Minnis, D. L. "Interacting in the Interrogative." *Journal of Teacher Education,* 1969, in Press.

8. Taba, H. & Elzey, F. F. "Teaching Strategies and Thought Processes." *Teachers College Record,* 1964, 65, 524-534.

Chapter IX

A Teaching Behavior Code*

ONE of the central concerns of educators is the limited extent to which school experiences produce meaningful behavioral changes in students. There is general awareness that the traditional teacher goal of helping students accumulate masses of verbal information is simply not having extensive influence in the out-of-school behavior of students. The critical question, then, seems to be, "What teaching behaviors will lead to significant behavioral changes in students?" It is the intent of this paper to answer that question. The authors propose to do this by identifying and describing teaching behavior.

A series of three videotaped teaching episodes has been developed to accompany the monograph. Information relative to availability for loan or duplication of the videotapes may be obtained by writing to the Utah State Board of Education, to the attention of Dr. Vere A. McHenry. The episodes are as follows:

1. *A Task-directed Carrier Project in U.S. History at 8th Grade Level.*
2. *A Teacher-directed Objective-free Inquiry Project in Mathematics, 8th–9th Grade Level.*
3. *A Teacher-directed Conceptual Objective in Home Economics, 7th Grade Level.*

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Part I. INTRODUCTION TO THE TASK

THE CODE CONCEPT

The primary purpose of instruction is to change or modify the behavior of others. In an attempt to do this teachers employ an endless number and combination of specific behaviors. These, traditionally, have been classified in terms of methods. Such an approach has not been productive for several reasons, perhaps the most important being that methods as such have little to do with the real factors that produce learning. Teaching behaviors can more realistically be classified according to the conditions that are established and maintained in a classroom. Such conditions create the learning environment in which student behavior is altered. Thus, the conditions become the medium through which a teacher is able to influence students.

There are four basic kinds of conditions, each of which has its own significant relationship to the dynamics of behavioral change. These conditions have been used as the framework for the development of a relatively uncomplicated code of teaching behaviors. The basic structure of the code consists of four teaching behaviors, each of which is elaborated by the identification of a small number of sub-behaviors. This elaboration makes the code both flexible and sensitive to an almost endless variety of specific behaviors in teaching. Thus it becomes possible to analyze objectively how a teacher influences and therefore alters the behavior of others.

BASIC CODE CATEGORIES

Teaching behaviors can be defined as acts by which a teacher establishes and maintains some set of conditions in a classroom, or in any other theater of learning.

The four kinds of conditions that influence behavior and its change process will be fully described in Chapter 5 and will appear in a recording instrument in Chapter 6. It is essential to introduce a brief description at this time to provide the necessary reference for the code categories.

Conditions for Learning

1. *The Learning Task*

A student's classroom life consists of reacting to a continuing flow of tasks imposed upon him by the curriculum. Here the critical element is the *nature* of the task presented to the student and its relationship to his personal and social life. Some of the obvious variations are its reality or artificiality, its relevance to his life, the level of response it calls for (from passive awareness to the use of higher mental capacities), and the amount of initiative and self-direction it requires and allows.

2. *The Pattern for Eliciting Student Response to the Task*

Teachers do a variety of things to elicit student responses. Here the critical element is the *type of interpersonal influence* the teacher applies to the student during the periods of learning. Two variables are of particular importance in this condition. One is the educative value or effect of a particular device, and the other is its control value or effect. When the two variables are laid out in continuum form and the various devices that are generally used to influence people are placed on those continua, a most revealing relationship appears. Devices that are high in educative effect are low in control effect, and those that are high in control effect are low in educative effect. It seems that we have two variables on parallel continua, moving in opposite directions. See Section II of the instrument in Chapter 6.

3. *The Working Climate and Teacher-Pupil Commitment to Tasks*

The critical element here is what the *working situation* does to the student's response and success in responding. The principal effect is one of facilitating or inhibiting a productive response. Much of this condition is in the nature of the social relationships among teachers and learners in the classroom. But closely related to this are other factors such as matching a task to a student's readiness, and individuating the work of students.

4. *Verbal-Conceptual Ratios and Balance*

The issue here is whether the teacher's verbal communications serve to *destroy thinking*, interfere with conceptual activity, drive students into laborious memorization of information, and dominate the situation, or to *keep the students oriented to his own behavior* and stimulate him to maximum direct response to his task.

With these brief descriptions of four critical aspects of a learning situation, we can now speak of teaching behaviors as acts of these four kinds, namely, (1) acts to set tasks for students, (2) acts to elicit response to tasks, (3) acts to maintain facilitating conditions for task performance, and (4) communicative acts that direct attention to, or distract it from, tasks. These behaviors become the four basic code categories which, with their sub-behaviors, constitute a preliminary structure for the total code.

Code 1. *Engaging the Student in a Task.*

The first-order sub-behaviors can be identified, with three second-order behaviors under each of these.

1.1 Establishing a pattern of task operation.

- 1.1.1. Setting up a "carrier project" with contributing learning increments.
- 1.1.2 Setting up a terminal learning objective consisting of a "behavioral" competence, a conceptual competence, or the mastery of verbal information.
- 1.1.3 Setting up an objective-free perceptual or verbal inquiry activity.

1.2 Using an interaction pattern with the student.

- 1.2.1 Putting the student into *interaction with a task itself.*
- 1.2.2 Starting the student on a *set of directions* to be followed.
- 1.2.3 Directing the student *personally.*

1.3 Providing materials for student use.

- 1.3.1 Providing materials of high relevance to the task.
- 1.3.2 Providing materials of high effectiveness for the task.
- 1.3.3 Having materials readily available to students as needed.

Code 2. *Using Response-Eliciting Devices.*

2.1 Eliciting perception of referents.

- 2.1.1 Requiring identification and differentiation of referents that are present.
- 2.1.2 Requiring description of referents that are present.

2.2 Eliciting conception.

- 2.2.1 Requiring recall of referents not present.
- 2.2.2 Requiring organization or reorganization of concepts.
- 2.2.3 Requiring predictions of consequences.

2.3 Eliciting decision making.

- 2.3.1 Eliciting decisions in a personal project.
- 2.3.2 Eliciting identification with decisions in vicarious situations.

2.4 Eliciting execution of a decision.

- 2.4.1 Eliciting execution of a personal decision.

2.4.2 Eliciting identification with the execution of a decision in a vicarious experience.

2.5 Eliciting perception of consequences of a response.

- 2.5.1 Eliciting perception of consequences of a personal response.
- 2.5.2 Eliciting perception of consequences in a vicarious situation.

2.6 Dispensing verbal information.

- 2.6.1 Describing referents.
- 2.6.2 Giving data about referents.
- 2.6.3 Stating conclusions for students.
- 2.6.4 Stating predictions for students.
- 2.6.5 Stating moral precepts or admonitions.

2.7 Using response-control devices.

- 2.7.1 Prescribing or regulating student behaviors.
- 2.7.2 Criticizing or disapproving student behaviors.
- 2.7.3 Physically managing student actions.
- 2.7.4 Commanding students.
- 2.7.5 Threatening students.
- 2.7.6 Aggressively forcing student behaviors.

Code 3. *Maintaining Facilitating Conditions for Task Performance.*

3.1 Maintaining high meaning and significance levels in tasks.

3.2 Engaging in personal relationships with students.

- 3.2.1 Approving or disapproving of students.
- 3.2.2 Accepting or rejecting students.
- 3.2.3 Expressing affection or disaffection to students.
- 3.2.4 Expressing compassion or hostility to students.
- 3.2.5 Expressing interest or disinterest in students.
- 3.2.6 Defending students or acting aggressively toward them.

3.3 Maintaining a working relationship with students during tasks.

3.4 Expressing an attitude toward student tasks.

3.5 Individuating student tasks and activities.

3.6 Arousing students to activity.

3.7 Detecting and alleviating deficiencies in student readiness for a task.

3.8 Reinforcing selected student behaviors.

Code 4. *Using Verbal Communication Processes.*

4.1 Maintaining optimum student verbalization.

4.2 Maintaining a high meaning level in verbal communication.

4.3 Maintain close relationship between data introduced to the class and and the concepts to which the data are relevant.

The behaviors in the code will assume greater significance when we use them as follows:

1. They are put into use as a means of precisely describing conditions that exist in any given classroom regardless of the model of teaching in operation. Thus comparative data can be obtained for any instances of teaching and brought into a meaningful relationship by means of the code. It will then be possible (a) to engage in research on the relationship between the conditions present in the classroom and the extent to which objectives are achieved, and (b) to plan teacher education programs for cultivating effective teaching.

2. The code is studied with direct reference to the educational implications of the substantiated knowledge of behavior and its change processes. The discussion in Chapters 3 and 4 establishes the necessary relationship.

3. The principal comparative models of curriculum and instruction operative in education are identified. Each of those models can then be described in terms of the code categories so that their common dimensions become evident.

Part II. PRINCIPAL PATTERNS OF CURRICULUM AND INSTRUCTION

There are many ways to describe the patterns of curriculum and instruction that have been developed over the years. For the purpose of this monograph it is enlightening to base our descriptions on the kind of task the curriculum presents to the learner and the kind of response the task elicits from the learner. This approach is compatible with our interest in keeping instruction aimed at the production of behavioral outcomes.

Curriculum and instruction patterns have been developed around five different aspects of human behavior, and all five of these patterns may be observed in operation in our schools today.

There is a sixth pattern that is a newly emerging model of teaching. It is based on a comprehensive version of human behavior and its change processes. The five patterns already in operation are, in reality, facets of variations of this complete model.

1. *VERBAL INFORMATION PATTERN.* The learner's task consists essentially of obtaining information from a book or from the teacher's verbal instruction. This requires the learner to store the information in its verbal form, and be prepared to repeat it on demand. Typically the information offered to students outruns by some distance their perceptual backgrounds. To the extent this situation exists, the students can make little conceptual sense of the material, and they have no other recourse than to memorize and try to retain the verbal material. This pattern is particularly prominent in the social sciences and humanities, but it is present to some extent in almost all subjects.

2. *DEVELOPMENTAL PATTERN.* The learner's task consists primarily of experiencing his environment. In its relatively pure form the activities are goal free in the sense that no specific learning goals are established around which the activities are organized. The experiences are intended to "develop" the person, emphasizing the use and acquisition of competence in the discovery processes, rather than the accumulation of any particular body of concepts, performance skills, adjustmental competencies, or verbal information. This pattern is prominent in the early grades, but since it emphasizes the perceptual processes it may be utilized in any situation where students are being exposed to new aspects of their world.

3. *SKILL DEVELOPMENT PATTERN.* The learner's task is to acquire a skill in some form of activity. Conceptual learning is de-emphasized, whether deliberately or as a natural result of the emphasis on performance.

The word skill has lost its limited reference to sensory-motor activities which are brought to some specified level of coordination and precision. It is now used in educational circles to refer also to activities that involve almost no significant motor component, such as reading skills, library skills, and so on. Practice is the standard device for skill development. This is highly appropriate for motor skills, but becomes less appropriate as the performance becomes mentalistic in nature. When non-motor skills are cultivated by practice, the conceptual learning that does occur tends to come along incidentally.

4. *CONCEPTUAL PATTERN.* This consists of the development of concepts from a logically ordered conceptual taxonomy within a subject matter field. The taxonomy structure is well illustrated by Bloom (1956) in a general form. The learner's task is to formulate a mental construct of some aspects of his world. He may be confronted with either of two approaches to this task. One is the verbal approach, as described by Ausubel (1963), in which verbal propositions are presented to the student by means

of some arrangement of verbal strategies (Smith, Meux, Coombs, Nuthall, and Precians, 1967). The strategies are intended to help him draw on his background in such a way that the presented propositions become meaningful and clear to him. The other is the perception-concept formation approach (Woodruff, 1961), in which the learner accumulates selected perceptual inputs directly from his environment and organizes them into a conceptual structure. In this approach past perceptual inputs are recalled whenever possible to make their contribution to the concept formation. This recall may be stimulated by the referents present at the time, or by verbal cues. As this possibility increases, the role of verbal discussion increases, and the process may move all the way to the verbal strategy pattern. It is only when verbal strategies are used in the absence of either past or current relevant perception that difficulty is created for the learner. In such a case the verbal information pattern is actually in operation.

5. *BEHAVIOR MODIFICATION PATTERN.* This consists of the use of reinforcement to increase the *probability* that the person will use one response in place of some other response in a given situation. The learner's task is to make some kind of response to a stimulus situation. The emphasis is on overt visible responses such as a verbal act, a social act, or a manipulative act of some kind. Reinforcement may be applied to the learner deliberately by the teacher, or it may occur spontaneously through the consequences which impinge on the student as a result of his act. In its spontaneous form this pattern of training is always present in human life and accounts for much of our behavior. In some deliberate form it has been present in schools from the beginning. Recently it is being given rather precise form by advocates of operant conditioning (Reynolds, 1968).

6. *AN EMERGING MODEL -- A LIFE INTERNSHIP PATTERN.* None of the foregoing patterns has been adequate, although each of them represents an essential aspect of an instructional system. When the full range of complexity of human behavior is considered, it becomes apparent that a system capable of coping with that range will focus its attention on the systematic and sequential development of adjustive behavioral competencies deemed important in life, with their underlying concepts, skills, and verbal information programed in as needed. This system will include all of the above, activating each of their several kinds of activity in various mixtures depending on the particular type of behavior under cultivation at the moment. The learner's task will consist of carrying out a piece of in-life behavior under realistic conditions, working with actual referents, making and executing his own decisions, and being affected by the consequences of his actions. It would be possible to activate this pattern by

building a learning cycle around the acquisition of one competence, and turning to another such objective when that one has been achieved. This pattern, described by Mager (1962), has two limitations, however. It tends to be limited to operant behaviors rather than conceptual behaviors, and it necessarily deals with small competencies of which there must be literally thousands to be achieved. Thus it lacks the kind of continuity which would hold a learner's interest over extended periods of time, and it suffers from the weakness of dropping a new bit of learning just as it has been acquired rather than using it in some productive behavior. Another way of activating the pattern is to engage the learner in the task of producing something which meets a want in his life. This could consist of an article of some kind, a circumstance he wants to enjoy, the resolution of some problem of concern to him, and so on. Tasks of this kind would be arranged so that they cannot be completed until the student has undergone certain profitable behavioral changes. Learning then becomes a by-product of his serious adjustmental efforts, and each increment of learning is put immediately to use in that effort. Tasks are analyzed for their required conceptual and performance components to insure that educationally useful tasks are used and that they do result in steady increments of learning.

Under all of these patterns each of the four basic code behaviors is clearly present, and an important part of the pattern. Each involves some kind of task for the student, some response-eliciting devices used by the teacher, a working climate with its social, readiness, and reinforcement qualities, and a verbal interaction pattern.

Reference to the recording instrument in Chapter 6 will show that it is possible to record each of these patterns in the format of the four basic code categories and their subcategories. The teacher behaviors are recorded in terms of the conditions the teacher is creating and maintaining. The particular tactics the teacher is using are not recorded, although notes may be included for that purpose. Specific methods are left deliberately to the teacher, since they can and may well vary considerably from one teacher to another. Their particular form is not important as long as they produce conditions which permit behavioral change to occur. Once we have established accurate recordings of the presence or absence of those conditions, we can begin to examine specific methods in the light of their productivity, whereas in the past that has not been possible.

If one takes this approach to identify the behaviors of teaching, it is a natural and simple step to describe teaching as the use of a set of behavioral competencies, which are possible to the teacher because he possesses their component concepts and performance abilities. Teacher education can be regarded as an arrangement of real teaching tasks, carried out in an internship, programed so they take the teacher through a graded series of small behavioral changes or learning increments leading to the prescribed competencies. The emphasis is not on knowledge *about* teaching; it is on competence *in* teaching. The acquisition of knowledge, whether it be conceptual or symbolic, is kept subordinate to behavioral competence and acquired as needed for that end. The competencies sought are those that produce classroom conditions that make behavioral change possible for students. The end products are clearly visible, they can be described specifically, and their attachment can be detected with a high degree of certainty. With this kind of feedback information available, it is inevitable that the specific tactics used by teachers to achieve those ends will be rapidly shaped, and that teachers can in fact become responsible for their own behavioral shaping.

Part III. THE SHIFT TO AN EMERGING CURRICULUM MODEL-- INTERNSHIP IN LIVING.

The need for a change of focus in teaching has led to a shifting of instructional objectives from verbal learning to behavioral competencies. At the outset this seemed logical, important, and relatively easy. As the full import of the behavioral focus opens up, however, and as we accumulate classroom experience with behavioral objectives, the shift looks more and more radical. The need for careful engineering to avoid its potential frustrations has become apparent.

There are a number of problems that have been encountered in developing and utilizing a behavioral curriculum. It is important in understanding those problems to remember that our schools are still working within the traditional concept of subject matter. That is, subject matter is seen to consist of several bodies of logically organized verbal information. Each "body" is a "field." Our learning targets consist of some small piece of a subject such as English, mathematics, history, reading, and so on.

The move proposed by Tyler (1934) and later by Mager (1962) did not change the targets. It simply required that a subject be presented to students in the form of verbal or nonverbal behaviors within that subject. The directions of the change were: (1) The task was to be put in behavioral terms, and (2) it was to be made specific rather than general.

In a curriculum composed of subjects we have two major behavioral possibilities. One is verbal behavior, which is typical of English, history, political science, and other subjects of similar nature. It consists of verbal repetition of information stored by a memory process. If the student proves capable of breaking through this memory level into deeper conceptual understandings, then it can consist of verbalization by the student of his own concept of something within that field.

The other possibility consists of nonverbal performance behaviors. These consist of a host of small overt competencies, which are typical of technical and vocational subjects, laboratory work, some parts of reading and writing and so on. The nonverbal competencies, being highly specific by design, are always small bits of action rather than the large mosaics of behavior which make up most human adjustmental life outside of school.

In the traditional model of teaching, with its academic subjects, an objective (even a behavioral objective) is turned into a lesson. A lesson has been a specific block of learning which begins with an introductory phase, goes through some form of absorption process, and terminates when the learner learns. The focus is always on *learning* something, and when it is learned the student stops working on it. That is, he does not then use it in his life but turns to another learning objective. Even our newer literature on behavioral objectives is embedded in the framework of the segmented lesson curriculum, as evidenced by such phrases as "terminal behaviors," and "terminal objectives." These phrases mean literally that the student's activity with a given behavior terminates when he has acquired it.

Even though we set up our objectives as behaviors we have not bridged the gap between what goes on in school and what goes on in life. The student is not learning things because they are necessary steps to an immediate goal he is seeking in order to satisfy a want. He is learning things because they are contained in a curriculum and the school requires him to learn them. Seldom does he put his newly acquired behaviors immediately to work in the production of something for which they are supposed to be useful. There is relatively little application or extension into life, it being implicitly assumed that this will take care of itself later when he faces life. Lessons of this kind, placed end to end, constitute a curriculum.

The impact of school learning on life behaviors could be dramatically increased if children were to acquire their new competencies within the context of the behaviors in which such competencies are normally used in life, and were to use them immediately in their life behaviors.

Another practical problem has come up in efforts to use behavioral objectives in school. It soon becomes apparent that they tend to take the form of very large behaviors, or of very small ones. The large ones seem to be whole programs of behavior. For example: The objective, "The student will build a bookcase," is no longer a small increment of learning.

Furthermore, it is too large to be thought of as a lesson. If students were started on the lower level components of such a behavior hierarchy and asked to work their way up to the culminating behavior at the top, they would be spending most of their time on rather tiresome little "competencies." For example, they would learn how to draw plans, how to measure wood for cutting, how to make various cuts, how to prepare boards for gluing together, how to make various kinds of joints, how to set shelves in grooves, and so on. The motivational power of getting the final benefit and satisfying a want with it would seem rather remote and lose its sustaining effect. There would be too much long-range anticipating and not enough rewarding closure.

On the other hand the little behavioral objectives tend to be so small as to be trivial, mechanical, unexciting, and unsatisfactory as objectives for learning units. Examples are the ability to hammer a nail straight, to saw along a line, or to adjust a microscope, all of which are only parts or bits of a complete instance of human adjustive behavior. An extended program of such bits is inevitably segmented, and it lacks the continuity that makes it seem to be moving a person toward something he wants. He is always acquiring little tools, and rarely closing in on their potential products. A curriculum of this kind is almost as remote from "life behavior" and as difficult to transfer to life as the verbal information curriculum.

In spite of these difficulties, the behavioral approach appears to be the best answer in view at this time. How can it be managed so it escapes from the difficulties just described and contributes directly to the life behaviors of the student? The cues that lead to a possible solution can be found by turning back to behavior as it goes on outside of school and noting the conditions which produce behavioral change.

Two conditions prove to be highly significant. First, out-of-school behavioral acts are aimed at some form of adjustive satisfaction. That is, they set out to serve the wants of the person. Their primary thrust is not to learn. Second, behavioral change, or learning, is always a product of the consequences of the behavior. Hence learning is incidental to the adjustive goal and act. This is a basic biological principle which we have generally overlooked in developing definitions of learning for use in school (Dubos, 1968).

Before we try to replicate in school the effective shaping power of out-of-school behavior, it will be helpful to look rather closely at the nature of behavior in its environmental setting. Five key components can be recognized.

1. *The person.* He is basically a want-motivated organism responding to stimuli in his environment.
2. *The environment.* It may be regarded as a matrix of objects engaged in events that have consequences. This is his subject matter.
3. *The interaction between the person and his environment.* This constitutes the person's behavior. It is the real learning process.
4. *The consequences which result from those events and interactions.* Special significance attaches to the way those consequences affect the person. This is the shaping force which produces the behavioral change.
5. *The person's perception of and reaction to the consequences.* This determines the direction of the behavioral change.

See Figure 1.

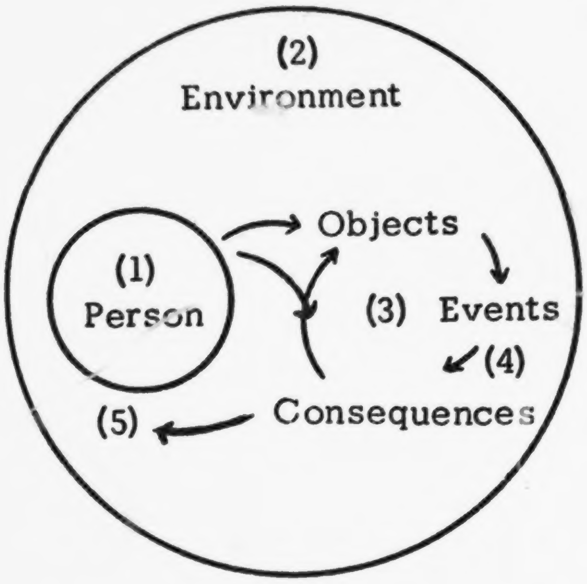

Figure 1
A Person in His Theater of Behavior

The simplest and most accurate way to describe the central element of behavior is in terms of the biological concept of a man-environment interaction portrayed in Figure 1. An organism engages, as long as it lives, in a running game with its environment. The organism tries to use the environment for its satisfaction, including the effort to shape it as it would like it to be. The environment in turn exerts a steady pressure on the organism to shape it so it fits the environment better. If the organism wins, then the environment is used and changed, and the organism remains essentially unchanged but satisfied. If the environment wins, then a change occurs in the organism. Dubos points out four kinds of possible change, depending on the nature of the interaction. They are genotypic, phenotypic, psychic, and social. Education is concerned with psychic changes, in the form of behavioral patterns.

The conditions which seem to be universally present when behavioral changes occur are as follows:

1. The person is directly engaged in the pursuit of a satisfier of some kind.

2. The behavior occurs in a real environmental setting and involves the person in an interaction with parts of that environment.

3. The interaction results in a consequence that is in some way relevant to those motives of the person which are active in that interaction.

3. The person recognizes the consequences, and what he recognizes is lodged within him in a way that modifies the internal variables that are already mediating his behavior.

Figure 2 represents the cogent aspects of this interaction.

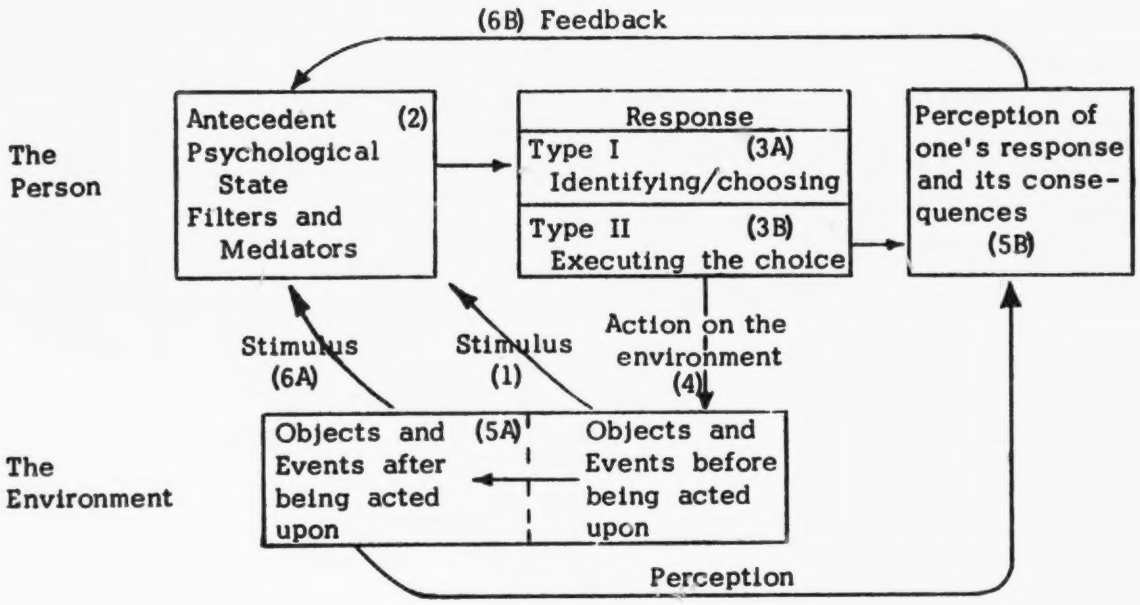

Figure 2
Behavior and Environment Modifying Loops in a Man-Environment Interaction

The two-way nature of this "game" is suggested by two loops. One cycles between the man and his environment, as suggested by following the numbers 1, 2, 3A, 3B, 4, 5A, 6A, and so on through 2 again. The (1) represents a stimulus provoking a set of reactions. The stimulus is screened through the person's antecedent psychological state (2), evokes an identifying and choosing response (3), and an external operation on the environment (4), which does something to the environment (5A), and gives rise to an altered stimulus (6A).

The other loop cycles within the person. He faces his environment with a pattern of antecedent psychological states (2), through which he filters the stimuli (1) from his environment. He responds (3) and (4), and perceives whatever he is capable of perceiving of the consequences of his response (5A) and (5B), which constitutes a feedback from his action to the mediating variables (concepts, values, conditioned patterns, verbal memory) that led to the action (6B) with resulting modification of those variables.

The first loop emphasizes the person's impact on the environment, and the second the environment's impact on the person. The second represents behavioral change or learning. This is the basic mechanism of learning, whether in or out of school. Dubos calls it adaptation, a term which has also been used by several students of human development and learning.

The critical properties of the man-environment interaction, which is so powerful in shaping behavior, seem to be as follows:

1. It is largely nonverbal and adjustive, although the person can verbalize about it.

2. The person is doing something overt to satisfy his wants.

3. What he does involves a full cycle of behavior, including perception, thinking and conceptual organizing, choosing a line of response, executing the choice, the precipitation of a consequence from the act, and the perception of the consequence and the way it affects him.

4. The person's decision is for real, and he receives the consequences of his act.

5. He may perceive those consequences very accurately or very inaccurately, but his behavioral pattern is shaped by what he perceives.

6. As a result of his perception he acquires or modifies the concepts and competencies he will use subsequently in trying to achieve his goals.

None of these conditions exist in today's schools, even where there has been a shift to behavioral objectives, with the exception of a few task-oriented programs such as the shop, or the debating team, and others like them.

Suppose we were to attempt to replicate in school the conditions that are so effective in changing behavior outside of school. The first and most basic move would be to change the *kinds of tasks* we present to the student. We would engage the student in the pursuit of something he wants. He would not be trying to learn. He would be trying to satisfy a want. In other words, he would be working on an adjustive task, which is by definition a task that leads to some kind of end condition he behieves will satisfy him in some way. He would learn as a by-product of his want-serving behavior.

If we shift to the use of adjustive tasks for students we get ourselves into a serious job of subject matter revision. In fact it proves to be quite difficult if not impossible to stay with the traditional subject matter curriculum structure. Let's see why. At present we offer subject matter to students largely in abstract verbal form, in packages we call fields. Fields of subject matter have no functional relationship to adjustive behavior. The verbal form in which fields exist is an artifact of the human mind. A verbally structured field is highly abstract. It has little or nothing to do with human behavior. We engage in communicating, not in "English"; in a specific musical event, not in "music"; in an election, not in political science. We behave with objects and events, not with information about them. Information plays a distinctly peripheral role in behavior, not a central one. Furthermore, abstract information is very difficult and dull to learn, and there can be no great surprise that it is hard for young minds to handle it.

In reality, subject matter is composed of components of the environment, namely objects engaged in events that have consequences. A person learns about several aspects of his environment in every interaction with those environmental elements. Any one such interaction may well involve musical objects and events, political objects and events, English objects and events, and so on. We could begin by putting our subject matter back into the form of objects, events, and consequences, from which it was abstracted in the first place.

An adjustmental task would naturally involve the phenomena of several so-called fields, simply because it engages the person in an interaction with referents which are common to all of those fields. A truly behaviorized curriculum built on units of adjustmental tasks would draw simultaneously on all fields of so-called subject matter that are relevant to a given task. This means we would not be asking the student to learn subject matter, but to master a competence in living, and then to use it to contribute to his living.

Rather than set out to have an experience with a subject such as chemistry, or political science, or sociology, the student would set out to produce a state of affairs which will satisfy a want. He would get involved with a composite of subjects, not just one subject at a time. Furthermore, his attention would not be on the subjects, but on his adjustive goal and the behaviors he must carry out to reach that goal. Everything he learned about his world under that arrangement would have a direct relationship to life. One might suspect at this point that no student would acquire a systematic grasp of any area of knowledge, but this does not follow from the use of a behavioral system. This problem is discussed in a limited way in Chapter 4.

An effective curriculum unit seems, then, to be an in-life want-serving adjustive behavior. It is not primarily a learning unit. It is first of all a living act. Can it be used to promote learning? Surely it can, since it does this so effectively outside of school. Such life tasks are capable of "carrying" learning along with them, particularly if they are selected for their carrier value. Learning increments can be appended to selected tasks in a very natural and highly transferable way. The projects a student is allowed to engage in are selected because they play central and important roles in his out-of-school life, but also because they cannot be completed until he has changed his behavior in certain fundamental ways. Each of those required changes is a small increment of learning. In contrast to the traditional system, he does not learn something and then drop it to go on to something else. He uses every new concept and competence he learns to move toward the product he is trying to produce. Learning in its most natural form is always a temporary detour from production activity, so the person can come back to his production activity with the competence he needs to succeed in it. Learning in school will become effective in life when it takes on that quality.

In contrast to out-of-school life, however, the projects in school will be planned so the detours are more frequent and more efficient, and so they supply the student with concepts and behavioral proficiencies known to have high value in life.

Part IV. CURRICULUM STRUCTURE TO ACCOMMODATE THE LIFE INTERNSHIP PATTERN.

We can conceive of the educative process as a theater of action in which students, as interns, practice realistic living under teacher guidance. In principle the scope of the practice is planned to include all of the basic competencies required in a full life.

The kinds of behaviors to be practiced are not to be arbitrarily selected. They are to be found in analytical descriptions of human adjustive behavior. There is a very meaningful relationship between these forms of human behavior, the traditional forms of curriculum patterns described in Chapter 2, and the kinds of learning materials used in education. The relationship is represented in Figure 3 and can lead us directly to the basic dimensions of an effective curriculum structure.

The forms of human response to environment are known to include perception of surroundings, development of useful concepts of that which is perceived, verbalization of concepts to allow for expressing them to others and also for forming them into outlines and bodies of abstracted information, the development and use of symbolic calculating systems such as mathematics and logic, and overt operations on environmental objects in the search for satisfactions of various kinds.

They are shown in Figure 3. In their ascending order they constitute the sequential phases of learning and behaving. They are also the phases of the cycle of behavior shown in Figure 2, although that figure does not show all of them in detail. The arrows pointing upward from one level to the next suggests the inductive process in learning. The base level represents the environment, which enters the person through his sensory apparatus in the form of percepts. The next level suggests that his percepts are turned into concepts or organized assemblies of percepts. The levels above that suggest, in their turn, that that which is perceived and conceived is then verbalized, and then acted upon.

In normal activity all of these levels of response may be active simultaneously, each contributing its part to the total behavior of the person. It is helpful to remember, however, that for any bit of knowledge or competence a person possesses, the progressive movement upward from perception to behavioral use at the top of the figure is the learning pattern. People have concepts in all stages of maturity, constantly being modified by this set of inductive processes. Concepts are also constantly involved in directing our behavior, whatever their state of immaturity or maturity at any given behavioral moment.

The traditional curriculum patterns described in Chapter 2 are shown at the right in Figure 3. The traditional skill development pattern is part of the behavioral level. In practice these patterns have not generally been regarded as complimentary parts of a whole curriculum concept, but as competitors for adoption as if each were a whole learning pattern in itself. When they are placed in Figure 3 and clearly identified with one or another of the phases of the whole learning cycle, their interrealtionships become obvious. They are not competitive substitutes for each other. They are all essential components of a complete curriculum model. This is true, of course, only when we define education as a process for cultivating competence in living. If we are content to equate education with mastery of verbal information, then the symbolic model is adequate. If we equate education with development of one's innate powers, then the experimental model may be adequate, and so on. If we really mean to produce competence in the essentials of complete living, then we must use all of these models in integrated form, each to cultivate that phase of human learning for which it is uniquely effective. Each of them comes into use when the competence being cultivated in a student requires its particular level of behavioral response as shown.

In the center are the materials of learning, which we can also call the materials of living, or the subject matter, or the curriculum content. These are equivalent terms in a behavior-centered educative process. Here again we recognize all of the traditionally used school materials: real phenomena, mediated forms of them, recalled conceptual memories of past perceived phenomena, verbalizations of our own and others' concepts for reading or for discussion, the various symbol systems with which we do calculations about the environment, and the endless forms of production projects.

Again, no one of these forms of material is adequate by itself. Each has its own usefulness in learning, and all of them are required in a complete behavior-centered program. No one of them is a substitute for another, each being useful only in connection with the aspect of behavior to which it is functionally related. That is, verbal materials are useful when a person is thinking about his own concepts, but not when he is trying to secure new perceptual inputs from the environment. Conversely, real referents or mediated portrayals of real referents are useful when a person needs new perceptual inputs, but not when he needs to think about what he already has stored from past perceptions. Real life projects are useful when the person has enough basic understanding of a situation to enable him to begin on a project with some chance of carrying it through to a satisfactory achievement. Naturally he will polish his competencies as he goes on with it. That is why the project was used as a task. But he should not start on such a project when he lacks the concepts and competencies needed in order to begin. One needs an exploratory perceptual experience when he is starting to cope with new and unfamiliar parts of the environment. Such an experience is no longer very useful after he has an adequate set of concepts about those phenomena and is ready to think through the implications of his concepts, or formulate precise verbalizations about them, or engage directly in some overt adjustive behavior with them.

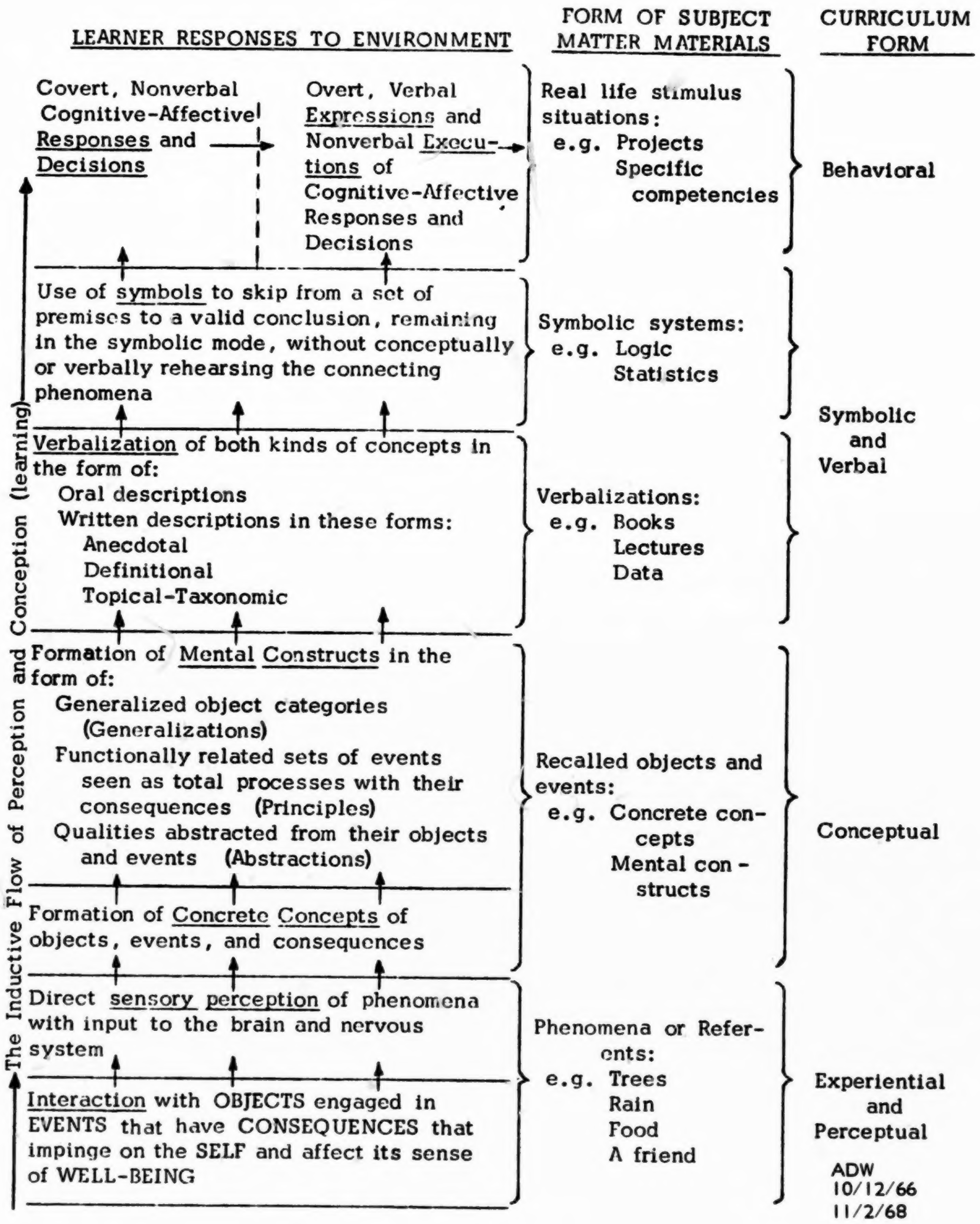
LEARNER RESPONSES TO ENVIRONMENT
FORM OF SUBJECT MATTER MATERIALS
CURRICULUM FORM
Covert, Nonverbal Cognitive-Affective Responses and Decisions
Overt, Verbal Expressions and Nonverbal Executions of Cognitive-Affective Responses and Decisions
Real life stimulus situations: e.g. Projects Specific competencies
Behavioral
Use of symbols to skip from a set of premises to a valid conclusion, remaining in the symbolic mode, without conceptually or verbally rehearsing the connecting phenomena
Symbolic systems: e.g. Logic Statistics
Verbalization of both kinds of concepts in the form of:
Oral descriptions
Written descriptions in these forms:
Anecdotal
Definitional
Topical-Taxonomic
Verbalizations: e.g. Books Lectures Data
Symbolic and Verbal
Formation of Mental Constructs in the form of:
Generalized object categories (Generalizations)
Functionally related sets of events seen as total processes with their consequences (Principles)
Qualities abstracted from their objects and events (Abstractions)
Formation of Concrete Concepts of objects, events, and consequences
Recalled objects and events: e.g. Concrete concepts Mental constructs
Conceptual
Direct sensory perception of phenomena with input to the brain and nervous system
Interaction with OBJECTS engaged in EVENTS that have CONSEQUENCES that impinge on the SELF and affect its sense of WELL-BEING
Phenomena or Referents: e.g. Trees Rain Food A friend
Experiential and Perceptual
The Inductive Flow of Perception and Conception (learning)
ADW
10/12/66
11/2/68

Figure 3
The Structure of Knowledge and Patterns of Curriculum

In Chapter 3 it was suggested that the shaping power of out-of-school behavior is vested largely in two of its qualities: (1) it is always pointed at something the person wants, and (2) the consequences of the person's behavior impinge on him and shape his behavior. Those two qualities, translated into the educative process, lead us directly to the use of want-serving production tasks as the main vehicle for learning in school, provided we temper them to the state of readiness of the learner.

To that line of thought, we can now add the review, in this chapter (Figure 3), of the several aspects of total human behavior and the kinds of materials and various forms of curriculum patterns that are related to them. Knowing that the several aspects or phases of human behavior go on simultaneously in any natural situation, we can conclude that our basic instructional vehicle must be such as to activate all of those phases of behavior. This calls for a natural task. That means simply that it must be a task which leads to some end product he wants enough to arouse him to vigorous action. Any end product will do, if it has this kind of attraction to the student. If he wants it and sets out to produce it, he is engaged in a want-serving task. A little thought about such tasks leads to the recognition that they can take several forms, also that they will vary enormously in complexity, difficulty, and in prerequisites over the range of the whole school program. We need, therefore, to explore some of those dimensions.

It is generally recognized that any genuine individuation of learning will be possible only when a teacher has access to a large repertoire of learning tasks. From these he can select one that is appropriate for a given student at a given time and start the student on it with a minimum of effort on his (the teacher's) part. Curriculum development will therefore take the form of the development of such a repertoire of projects or tasks for all areas of human behavior and for all levels of maturity.

The two main dimensions of scope and sequence will still be present, even though we shift from bodies of information or taxonomies of concepts, to adjustive behaviors. In a behavioral program, the scope of curriculum refers to the areas of life to be included, and the sequence refers to the order of movement through those areas, just as in a verbal information curriculum.

All of the areas of life that we believe education should affect will be included in the curriculum. The term behavior may cause us to think first of the more obvious action patterns such as manual skills, and vocational competencies, but this is a tendency we must overcome. Aesthetic, scientific, economic, political, social, and other similar areas of life are just as much a part of a behavioral curriculum as the obvious motor areas. Becoming behavioral in no way favors one area of life over another. As in the past, those who are responsible for setting the objectives of education must decide what areas of competence are to be cultivated in school, and the technicians in behavioral planning must go to work at that point to determine how they are to be developed.

The sequence problem becomes much clearer in a behavioral curriculum than in a knowledge curriculum. Our sequences in the knowledge fields have been far more arbitrary than empirical. We have just worked our way through outlines of information. This need not be the case in behavioral learning. The task analysis process is capable of identifying those sequences which are inherent in the learning of competencies so they can be utilized in the schools. In addition to that, a study of the behaviors in which people engage at the various stages of their development is quite capable of identifying the behaviors students are ready for, are motivationally interested in and can use to good advantage at various times in their lives.

These two provisions--(1) levels of readiness and interest, and (2) order of easiest learning--provide in the only possible way for individuation of the kind implied by individual progress and continuous progress programs. What they make possible is the placement of a student in a task for which he is ready and in which he can succeed, and which holds his attention and stimulates him to action. Diagnostic analysis of the student is simply the identification of his readiness for any given task, or for any given level of task. This process is apparent in the recent developments in Individual Prescribed Instruction programs.

A contributing factor in adequate curriculum sequencing can probably be found in the concept of developmental stages in life. This possibility exists primarily in a behavioral curriculum and becomes almost meaningless in a knowledge curriculum.

On a purely suggestive level we can recognize that infants and young children are at what might be called a perceptual intake stage. They have relatively little accumulated perceptual background, so they do far more sense-perceiving than complex conceptual organizing. Educational tasks for children at this stage might consist largely of exploring their surroundings. Their curiosity is such that exploration is satisfying in itself.

Within a few years, children obviously display preferences for certain toys, persons, food items, and so on. These are their short-term goals or wants. Their behavior is shaped significantly by the consequences of the ways in which they pursue these ends. Educational tasks for children at this stage would likely be short-range projects aimed at the things they like and want.

As children become more mature, their wants take the form of objects and conditions that take longer to acquire. Also, they become aware that their own competencies have something important to do with the achievement of their goals. From this they come to want certain personal qualities and therefore to engage purposefully in self-shaping. When this is so, educational tasks can often consist of the pursuit of those new traits and competencies for which a need is felt.

A person discovers that knowledge is a useful tool in his life, he will also find it a satisfying pursuit in its own right. When that happens even the learning of verbal subject matter can take on the psychological properties of a want-serving task. This is particularly likely to occur if the school has helped the student become conscious of the usefulness of learning, and proficient in self-directed learning. Finally, some students will choose goals that involve them in the mastery of the very fields of abstract knowledge from which we must rescue the schools for the most part. This would be true for one who intends to engage in academic research and scholarship.

One other important dimension of the curriculum is its provision for varying the tasks given to students to match their individual interests. This can be provided in two ways. One consists of differentiating between competencies that are deemed so essential to life that everyone should have them in some minimal form, and competencies that do not have that essentiality for everyone. Beyond the essential areas of learning we can provide as many elective lines of behavior as resources allow and human interests justify.

Within the essential areas of learning, however, we can provide at every level, and in every life area, alternative projects with equivalent learning content, differing in specific tasks. This too will give latitude for individualized learning.

For those who are concerned lest we lose sight of some concepts, some subject areas, or some bodies of information that have been held in high esteem by society, a word needs to be said about the checking processes that would have to be used in curriculum reorganization. The behavioral approach is not disrespectful of the fields of knowledge. Its proponents are simply disgusted with sterility in education. This pertains to the *way* a student encounters knowledge. It does not mean that knowledge is to be disregarded.

It is possible to move the whole accumulated mass of human knowledge through a series of translations across at least four forms, without losing any of it in the process. Since knowledge is about something, the first and most constant is the phenomenal form--that is, the form of objects, the events in which they engage, and the consequences of those events. All forms of verbal information or knowledge are directly derived from these phenomena. A second form consists of the direct interactions which occur between those phenomena and us, the people who live among them. This is the behavioral form on which curriculum construction is now being founded. A third form is conceptual, which consists of the internalized images and mental constructs people acquire from their interactions with their surrounding phenomena. We utter those concepts by means of verbal descriptions of them. The verbal statements can stand for those concepts rather well, as long as we do not become overly absorbed in the verbalizations and forget that they are only noises which stand for a person's concepts. The fourth form appears when we abstract all the data we can recognize in those phenomena, sort it out in some orderly manner, and put it into the form of a taxonomy of some kind. Then we have bodies of *information*, or *fields* of subject matter.

The one central goal behind any or all of these maneuvers with the world is to acquire competence in dealing with the world. It makes no difference whether the goal is vocational competence, social competence, philosophical competence, verbal competence, or something as ethereal as intellectual competence. Any form of competence consists of manipulating something whether it be objects, ideas, or whatnot. A curriculum built to produce competencies can be turned to the service of any form of competence in any aspect of life. If anything important is omitted, it is the fault of those who name the objectives, not of the system.

In a systematic curriculum development movement, it will be both useful and necessary for the technicians to move freely back and forth through the four forms described above for checking purposes. The information form and the conceptual form will both be useful for identifying areas of human behavior which might be overlooked if those cross-checks were not employed. In trying to identify the behaviors that constitute human communication, for example, it is helpful to refer often to the rules of grammar for hints of some behavioral or phenomenal aspect of communication easily overlooked.

In addition to their cross-check values, we will see that both conceptual and verbal information forms of knowledge will be brought directly into learning tasks which are aimed primarily at some competency since they play vital roles in those competencies. The behavioral movement will not dispose of them. It will simply move them out of the central position of objectives in their own right and re-enter them in the role of contributing factors in the particular bit of human behavior which is the central objective at the time.

CRITERIA OF USEFUL PROJECTS

Want-serving projects can produce a well-educated person if they are admitted to the curriculum on the basis of criteria established for that purpose. Those criteria can be sorted into two areas of concern. One is the maintenance of educative value. The other is the maintenance of feasibility for a given learner. In each area three criteria appear at this time to be needed. For the purposes of this monograph we need only recognize the criteria. Describing their actual use in curriculum work is another task.

EDUCATIONAL VALUE

1. The project should be one that plays a vital role in life at the student's present level of maturity.
2. The project should require the learning of far-reaching concepts and proficiencies for its completion. It should not be composed of trivialities.
3. There should be projects that engage students in all the basic behaviors of their world, with emphasis on those that require the help of the school in their cultivation, as distinguished from those that can be acquired outside of school as extensions of the more basic behaviors.

FEASIBILITY FOR A GIVEN LEARNER

1. The project must lead to something the student wants, so it is motivationally attractive to him. The mere fact that an end product would be good for the student is not enough to qualify it on this criterion.
2. The student must be able to start on the project with his existing competencies, and the task must look possible to him.
3. The project must require the acquisition of a tolerable load of new concepts and competencies for its completion. To be tolerable, they must be capable of acquisition before the student loses interest or succumbs to a sense of futility.

If these criteria are satisfied, we can be sure the student will be learning important things about all aspects of life, will be moving on the basis of his own motives and largely under his own self-direction, and can succeed in doing it. Any problems of feasibility for a given student beyond the factors involved in these criteria will be handled by the diagnostic and prescriptive services of teachers and those who constitute the instructional and counseling team.

Part V. THE BEHAVIORS OF TEACHING

We began this description of teaching with a codified set of behaviors in highly condensed form. To develop meaning for those behaviors we looked at several aspects of the educative operation.

First we examined the familiar models of instruction that have been operative in schools for many years, together with their particular forms of subject matter. Then we turned to the nature of behavioral change in its full form. That was followed by recognition of the need for a model of instruction which matches the facts about behavioral change. That model, it was suggested, would focus on want-serving tasks for students and would use all the familiar forms of instruction and subject matter in their appropriate contributing roles as adjuncts to the want-serving tasks.

In the light of those ideas we turned to the task of reorganizing the curriculum around want-serving tasks, of a range and variety which could produce a well-educated person and emphasize his own potentialities. This series of inquiries brings us back to the teacher and the classroom.

In describing a classroom which constitutes a theater of action for behavioral shaping, we are at the same time describing the behaviors of teaching, since they are all acts for setting up and maintaining the conditions required in that theater of action. A major shift is involved in our concepts of teaching.

The curriculum shift might be characterized as moving away from bodies of verbal information dispensed by teachers in academic settings, to episodes of want-serving behavior carried out by students in real settings.

The shift for the teacher and learner is equally diametric. It is a shift from a teacher *teaching* to a student *behaving* and consequently *learning*. The familiar concept "to teach" is encrusted almost irretrievably with the notion of information dispensing. It is a relic of the verbal information curriculum which focuses attention on the teacher. It is about teacher activity, not learner activity.

In contrast, the concept "to learn" focuses attention on the learner, not the teacher. It is about learner activity, and it is learning activity that counts. A person carrying out a life task or engaged in behavioral shaping does not need a "teacher." He needs a coach. Teaching and coaching are very different activities.

When the stage is rearranged from a listening set to an acting set, a corresponding shift of responsibility for acting has to occur from the teacher to the student. The teacher now takes on a different set of functions or behaviors. That is, the general coded behavior forms shown in Chapter 2 as the four principal kinds of acts are manifested in different specific forms. The teacher now sets up the learning theater; sets tasks for students; diagnoses readiness and difficulties; maintains encouraging working conditions; provides all kinds of working materials, including models of many kinds from which students can get ideas to try out. He guides attention in a variety of ways, leaving students free to respond to those objects of attention, and keeping students involved in their tasks rather than in an interaction with him. He uses various influence devices to keep students actively responding to their tasks and materials, but uses those devices that are as high in educative value and as low in control value as the level of self-control of the student makes feasible. He observes progress and redirects effort whenever necessary to keep students in productive action.

With this background, brief as it is, we can turn now to "A Guide to Effective Teaching." It is a relatively condensed presentation of a map of classroom conditions required for producing behavioral change in students. The guide was produced by means of a series of workshops and tryouts over a period of several years. The workshops were held under the sponsorship of the New York State Department of Education, and under the immediate management of Dr. Joe H. Miller at the State University in Geneseo, New York. Revisions have been and will continue to be frequent with use, although the form of the instrument and the content of the descriptive paragraphs are tending toward stability by this time.

A GUIDE TO EFFECTIVE TEACHING

A MAP OF CLASSROOM CONDITIONS REQUIRED FOR PRODUCING BEHAVIORAL CHANGE IN STUDENTS

Asahel D. Woodruff

The first version of this instrument was prepared in a cooperating teacher institute at State University College, Geneseo, New York, in the summer of 1967. The institute was sponsored by Dr. Joe H. Miller, Director of Student Teaching at the College, and was financed by the New York State Department of Education. Following a year of exploratory use, the instrument was revised in a second institute at Geneseo, with the participation of cooperating teachers, school principals, and supervisory personnel.

Revisions have been frequent during the period of exploratory use, but the form of the instrument and the content of the descriptive paragraphs have tended to stabilize recently.

Additional exploration and experimentation is encouraged. Under most circumstances permission to reproduce the instrument can be obtained by writing to the holder of the copyright. Copies of the instrument in its present form are also available at that source.

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A TEACHING BEHAVIOR CODE

PURPOSE OF THE GUIDE

Human behavior changes in response to certain dynamic forces that operate constantly in a person's interactions with his environment. Changes occur in behavior only when it is going on in real or simulated situations under the full impact of the environmental forces within which we live, and of the consequences of one's behavior which are perceived by the behaver and are thus fed back into his pattern of controlling variables.

Analytical descriptions of both human behavior and instructional processes have provided us with knowledge of those dynamic forces and the manner in which human behavior responds to them. What we have learned is so devastating to the traditional concept of teaching as the dispensing of information that we must now abandon that unproductive concept and change to one which meets the known requirements for producing change in human behavior.

This guide is intended to identify the crucial conditions for producing change in human behavior, and to indicate the forms of those conditions which facilitate change and the forms which inhibit it. Each item in the guide thus resembles a continuum with facilitating conditions at one end and inhibiting conditions at the other end. While the guide serves primarily to map out the productive conditions, it may also be used to record the actual conditions in a classroom under observation. Such a recording is purely descriptive and does not constitute a rating.

The instrument is concerned directly with the state of affairs that exists or should exist in the classroom. It has nothing to do with the specific methods a teacher may use to produce or maintain those conditions. There can be almost endless variation in such specific methods, as long as they produce the conditions which facilitate behavioral change.

SOME ASSUMPTIONS AND CONCEPTS OF CENTRAL IMPORTANCE

Any operational pattern rests on a framework of concepts which can be stated in the form of assumptions. Here are a few that are of central importance in this approach to instructional analysis.

1. Instructional objectives are assumed to consist ideally of constructive changes to be produced in the behavior of students. Those changes are usually brought about by the acquisition of new concepts and behavioral competencies. It is assumed that:

   a. Teachers may deliberately or unwittingly be engaged in instructional plans that lead dominantly to the acquisition of bodies of verbal knowledge as differentiated from conceptual understandings or instrumental behavioral competencies.

   b. The acquisition of bodies of verbal knowledge is not likely to influence greatly the learner's decision-making behavior in life. This is evidenced by the psychological facts about human behavior.

Therefore, the trend is expected to move sharply to the use of behavioral objectives and associated concepts.

2. Following a large body of substantial psychological evidence, it is assumed that human behavior can be described as a cybernetic energy system which takes in perceptual input through the senses, stores it in the form of conceptual patterns, and uses those patterns for selecting and executing adjustive acts. Behavior is, therefore, amenable to educational influence primarily through the perceptual and conceptual channels, with the supplementary contribution of what has come to be known as operant conditioning. Conditioning results in the acquisition of numerous relatively automatic and fixed overt response patterns. These patterns serve as the motor elements by means of which a person executes his decisions.

3. Learning can be thought of in two ways: (1) as a separate process or activity which can be carried on in a classroom independently of the out-of-school behavior it is intended to influence; and (2) as a change which occurs in behavior as a result of the operation of that behavior under normal life conditions. The first concept is illusory and leads to academic activities which have little direct effect on life behavior. The second concept is closer to agreement with psychological facts. This concept involves two elements: (1) a life-behavior going on in its regular manner, and (2) a circumstance that causes the behavior to change in a way which permits the person to move toward his goal more effectively.

A life-behavior is interpreted to be one in which a person is faced with a situation which requires an adjustive response from him in which (1) he makes such an adjustive response, (2) the consequence of his response affects him, (3) he perceives the effect, and (4) the effect reinforces or deinforces his conceptual and motor patterns accordingly. A situation of this kind is most likely to exist when the person is pursuing some goal of his own choosing. His behavior is likely to change when he finds himself lacking in some understanding, some performance proficiency, or some information which is necessary for his success. Experiences in a classroom rarely meet these specifications under typical school conditions.

It is assumed within this general position that concepts can form in a classroom through perception and thinking, but they do not become active factors in one's motivating drives until they become involved in his adjustive behavior and he is affected both intellectually and emotionally by the consequences they produce for him.

4. It is assumed in harmony with the basic literature also that the es of the cycle pattern in the human cybernetic system (namely: per- tion, concept formation, use of concepts in making decisions, the execution of decisions, and the perception of the consequences of one's actions) reveal real inter-dependencies that can prevent learning if they are ignored and not provided for.

More explicitly: A concept of something cannot form until its perceptual elements have been fed into the system by means of sense perception. Verbal efforts to substitute for this direct sense-perception will not succeed. A person cannot make a decision about a particular matter until he has meaningful concepts about that matter. A person cannot carry out a particular form of meaningful adjustive behavior until he has used the appropriate concepts and made a "decision" which commits him to that response and until he can guide his response by his conceptual patterns and stored programs. A person cannot get personally and emotionally involved in a situation without engaging in a personal encounter with it, so his motives cannot be affected until he acts and then feels the consequences of his act. Under this assumption a form of education which remains detached from real adjustive life processes will have little transfer to out-of-school behavior.

5. It is further assumed on the basis of the same psychological literature that concepts cannot be transmitted from one person to another, but that they must be formed by each person from his own perceptual experiences with the real referents or good portrayals of them.

These assumptions have led to the inclusion in the guide of a set of items identical with the phases of the behavioral cycle, in section II, "PATTERN FOR ELICITING RESPONSE TO THE LEARNING TASKS." These items will be most meaningful to one who is familiar with the concept of behavior as a cybernetic energy system.

PRIORITIES AMONG CLASSROOM CONDITIONS

The most essential condition for behavioral change is in the nature of THE LEARNING TASKS (items 1 to 3 in Part I and 11 in Part III). Behavioral objectives and behavioral units aim learning directly at behavior. Without them we tend to traffic in various kinds of verbal information or aimless activity which have little power to affect daily behavior. It will be years before we have an adequate repertoire, ready in advance, of behavioral units for all parts of the curriculum; but until we do there can be little individuation of learning, little real self-responsibility for learning by students, and little freedom for teachers to become planners, stage setters, and consultants to self-directing learners. Whenever one or more behavioral units can be supplied, these productive conditions can follow.

Granted students can be put to work on actual life-behaviors with goals that are vital to them, and can be faced with the need for some change in their behavior before they can achieve their goals, the next most essential condition is a productive pattern for ELICITING RESPONSE TO THE TASKS (Part II). This consists of the use of influence devices which emanate largely from the environment with which they are interacting, and which elicit from them such responses as perception, thinking, making decisions, executing decisions, and perceiving the consequences of their responses. When the teacher steps between the learner and his interactive environment, and in place of those environmental influences dispenses verbal information of various kinds or uses response-control devices on students, he engages the student in a student-teacher interaction rather than a student-environment interaction. This not only interferes with natural learning, but usually produces one or more inappropriate reactions from learners, ranging from meaningless verbalistic behavior to antagonistic resistance (items 9 and 10).

Influences that emanate from one's environment are capable of eliciting student perception, recall, review, conclusions, and predictions, and these influences are highly educative. They make the learner the active party, and make him a self-directing inquirer and responder. Influences that emanate from an intervening person may consist of describing, giving data, stating conclusions, stating predictions, and stating moral precepts without allowing students to recognize them from their natural premises. These direct person-to-person influences tend to inhibit student thinking.

They make the teacher the most active person and subordinate the student's behavior to that of the teacher. Person-to-person influences that prescribe or regulate, disapprove or criticize unconstructively, physically manage, command, threaten, or use aggressive force, are control devices that have no educational value. They arouse either resentment and rebellion or submission and withdrawal from responsibility. Behavioral change requires the influences that emanate from an interaction with environment, with their power to activate the full cycle of learning.

Human behavior is heavily dominated by conceptual patterns which provide an individual with the power to cope with his environment. Both the concepts themselves and their transformation into actual motives and behavioral competencies require all five phases of the cycle described earlier. Furthermore, the concept-forming phase must advance beyond mere repetition of observed information. It must involve description of what is observed, moving on to analysis, organization into meaningful concepts, interpretations and explanations, and finally the forming of conclusions, the making of predictions, and creative and inventive reconstruction of ideas. This cycle is behavior in its complete form. Any attempt to reduce it to mere verbal rehearsal of "what one might do," or merely to discuss such behavior academically, destroys the essence of reality and makes behavioral change impossible. Obviously this behavioral cycle requires reality in the learning materials. Otherwise real or vicarious perception, real or vicarious decision making, real or vicarious trial, and real or vicarious feedback do not exist. When they do exist, behavior can be affected.

When the first two conditions exist, it becomes meaningful to talk about WORKING CLIMATE AND TEACHER-PUPIL COMMITMENT TO TASKS (items 11 to 18 in Part III). Working climate is largely, but not exclusively, a social problem. It rests heavily on good personal relations, on contagious vitality in the teacher, on diagnostic and remedial attention to each student, and on the continual reinforcement by the teacher of productive behavior by the students. The climate factor is largely a stimulation and trouble-shooting factor, whereas the other four factors are basic parts of the behavioral change processes.

Closely related to the cycle of learning and the use of environmental influences is the use of verbal communication in the classroom, and particularly the VERBAL-CONCEPTUAL RATIOS AND BALANCE in that communication (items 19-21 in Part IV). In short, behavior can be changed most effectively when students do more and more of the talking, when they are talking about what they know conceptually, and when any verbal information they obtain is intimately related to the concepts they are acquiring and is necessary to the thoughtful use of those concepts in making decisions. Under the opposite conditions, verbal activity can destroy thinking, interfere with conceptual activity, degenerate to laborious memorization of information, and swing back to a teacher-dominated ratio with passive and bored students.

A TEACHING BEHAVIOR CODE

GUIDE TO INTERPRETATION OF THE INDIVIDUAL ITEMS

I. THE LEARNING TASKS

1. The Intended Pattern of Operation: The specific behaviors of a teacher are all parts of a general pattern of operation the teacher is following, whether deliberately or unwittingly. That pattern can be identified either by a direct inquiry to the teacher or by observation of activities and materials. Three general patterns which are likely to include most teacher performances are identified here, and the appropriate one can be marked.

1A. A Carrier Project with Contributing Learning Units: The student is engaged in a real in-life behavior aimed at producing something he wants. His intended product may be an article of some kind, the solution to some problem which concerns him, successful participation in some activity, or anything else that fills a need or desire. The project is utilized by the teacher as a vehicle for learning, in that the student cannot successfully complete it until he acquires some new concepts or competencies. As he becomes aware of the need for each of these elements he turns to them and acquires them, so he can go on with his in-life task. This pattern of operation is the one under which learning normally occurs in the out-of-school life of a person. Students can work on tasks individually or in groups, on short of long tasks, on one task at a time, or on two or more tasks concurrently.

1B. A Terminal Learning Objective: In contrast to a carrier project which includes several learning objectives and does not terminate with any one of them, students may be askedto work on a learning objective which, when accomplished, will terminate the unit. In this case all of the student's activity is directed to the learning objective; none of it carries beyond that to a product in which the new learning is used. A terminal learning objective may be a behavioral competence, a concept, or a body of verbal information (facts, formulas, etc.).

1C. Objective-free Activity: The teacher may ask or allow students to engage in unstructured activity with a set of materials, a subject, or a problem, with no particular objective in mind other than to have some experience. This condition may exist deliberately, or simply as a result of informal teaching without establishing an objective.

2. Intended Influence System: The teacher's use of influence on students usually tends to fall into one of the typical patterns indicated here in items A, B, and C. The choice is likely to be made subconsciously unless the teacher is made aware of the different patterns and what they do to students. There will usually be an observable relationship between the pattern checked here, and the devices used by the teacher as shown in items 4 to 10 in Part II of the recording instrument.

2A. Direct Student Response to Task and Materials: The student has a recognized task to perform, and his attention is directly on that task and the materials involved in it, rather than on a set of prepared directions or on the teacher and the teacher's instructions and activities. The interaction is directly between student and task materials, and the student is directing his activities in response to what is happening in his task.

2 B. Student Self-response to Directions: The student is following a preconstructed lesson, working from some kind of directions. The student works independently of the teacher. The teacher may comment occasionally, or the student may ask for help if he needs it, but the main interaction is between the student and the task he is working on, with guidance from the directions.

2 C. Direct Teacher Conduct of the Process: The teacher is directly and continuously involved in the lesson. He introduces it, presents the material, directs the student activity, conducts any discussion, and brings the lesson to its end. The student is following the teacher's direction throughout the lesson.

3. Materials: While lesson materials (books, objects, media of all kinds, paper and all forms of working materials) are necessary in any kind of instruction, they are especially important when students work on tasks independently of the teacher. They are the link that ties the student to his real world and makes true in-life tasks possible. Relevance means that the materials fit the task closely and enable the student to get to the heart of the matter. Effectiveness means that the materials are understandable, that they work well, and they they yield their meanings quickly and sharply to the student. Availability means that the student can get them quickly and easily when he needs them without having to wait for the teacher or other students, and that there are enough of them to take care of his needs.

II. PATTERN FOR ELICITING RESPONSE TO THE LEARNING TASKS

A. DEVICES USED TO INFLUENCE STUDENT BEHAVIOR

The teacher is a major source of influence on the behavior of students in school. The influence which one person exerts on another can vary from highly destructive to highly constructive and developmental. It is that range we are concerned with in describing that aspect of the conditions in a classroom. There are many devices by which a person extends his influence to another person, and those devices determine what the effects will be. Perhaps the most important ingredient of interpersonal influence is whether it imposes domination and control on a person or frees him from external control and helps him acquire increasing self-control and independence. Therefore it is educationally meaningful to set up a continuum of influence devices of the kind that may be used in teaching. The continuum runs from one pole which is high in developmental influence and education and low in control (items 4-8), to another pole which is low in educative influence and high in domination and control (item 10). Another way of describing the continuum is to say that at the highly educative end the teacher's influence is largely to stimulate the learner through real situations (items 4-8). Toward the center of the continuum it becomes more direct so that it tends to structure the person according to the ideas of the influencer (item 9). At the highly dominating end of the continuum it turns into outright control devices (item 10). The continuum in this guide is made up of some seven typical devices beginning with the most open form of conceptual teaching and running to aggressive forcing of a person into some prescribed form of behavior.

4. Eliciting Perception: This refers to presenting real objects or events to students for them to perceive, or using media or simulated experiences for the same purpose. It is a prior step in learning to the one below, since the percepts acquired in this way make recall and conception possible. The student can be stimulated first to identify, and then to describe what he he is perceiving.

5. Eliciting Conception: This is probably the most educative and least controlling device a teacher can use. It consists of stimulating a student to recall percepts which he already possesses and which are relevant to a concept under discussion, and to think about those percepts and what they mean. The teacher does this effectively by eliciting student thought and response of three possible kinds. The first would be identifying or describing something. A step upward from there would be organizing or reorganizing a concept or stating some conclusion about it. A still more advanced step would be making predictions on the basis of data and conclusions.

B. STUDENT RESPONSES

This refers to the learning cycle consisting of perception, thinking and concept formation, decision making, overt adjustive response, and interpretation of feedback from the consequences of the response. Concern with the decision making, trial, and feedback phases of the cycle grow out of their critical role in making learning transfer to actual behavior, and in creating motives in students to act according to the concepts they have formed. Items 4 to 8 fall within the five phases of the learning cycle. Item 9 is the mere repeating of verbal information.

All of the phases of the cycle are important, each in its own place and for its own purpose. Conceptual learning is helped most when the full cycle (all phases) is brought into operation at some point in the acquisition of a concept.

Perceiving: Perception is required if students need new inputs from the real world in the forming of a concept. Perception may be activated by many forms of media, as long as they are not used to transmit words or numerals to pupils. Perception is rarely activated by the spoken word, although stories can help students perceive some forms of human experience. This condition exists only when pupils are actually perceiving real referents such as the objects and events themselves or vivid portrayals of them. If stories or drama are used, they must be dramatically portrayed or they fail to produce real perception. A synopsis of a story or play will not produce perception, because it has lost its real behavioral qualities.

Describing: The act of consciously describing what one is perceiving assists greatly in getting an accurate percept of it. It helps in two ways: by forcing attention back to the referent, and by making the student conscious of what he is perceiving. When students describe what they are perceiving, their conceptual learning moves along rapidly. When the teacher does the describing, student learning is usually interfered with. When the student needs help in describing what he is perceiving, it can be given best if the teacher will simply direct the student's attention to those aspects of the referent he is trying to describe and help him find the words to describe it.

Analyzing: A given referent may have to be dissected or opened up in some way so the student can perceive otherwise hidden aspects of it. The process of opening something up or taking it apart is analysis. This can be done with a biological specimen, a piece of inanimate material, a physical process, a chemical compound, a piece of literature, an article of food, a human motive, or anything else. Analysis of any particular referent usually requires some kind of technical competence to perform the breakdown. Analysis is almost always a device used to serve the purposes of more penetrating perception. Unless we can get "inside" of many referents, we are unable to perceive their constituent parts and therefore are unable to form sharp concepts of them.

Reviewing and Organizing: Concepts form when a student recalls two or more meaningful perceptual inputs from the present or the past, reviews them, finds a relationship among them, and organizes them into a construct which we refer to as a concept. Although much of this kind of thinking is done subconsciously, it is apt to be done more effectively if it is done consciously. A significant contribution of the school to a learner is made when the learning setting causes him to recall, review, and organize his perceptual inputs thoughtfully, and to discuss them with others as they form. Discussion which accomplishes this is highly educative. Premature discussion, before the inputs are there, will be confusing and uneducative.

Interpreting and Explaining: A step beyond initial concept formation occurs when the student reexamines his mental constructs carefully, looking for cause-and-effect relationships, or any other relationships that help him understand how something works, or how it comes about, or what it may mean to something else. This form of learning is a preliminary step which makes it possible to form conclusions and to make sound predictions. Classroom conditions can be made to stimulate this form of conceptual thinking. A common way of doing it is to direct the student's attention, by various devices (principally, the referents themselves), to the relationships or phenomena which provide explanatory insights.

Concluding: A conclusion is a form of mental closure by means of which a learner recognizes the implications of some set of circumstances. For example, repeated observations that a magnet always attracts things made of iron lead to the conclusion that there is a force field operating out of the magnet with properties that have a peculiar relationship to the physical structure of iron. This conclusion can now serve as a step for making a prediction about some future event, and possible for formulating a principle. A person's concepts are not very useful to him in directing his own behavior until he reaches this stage. A classroom setting can provide stimuli that cause students to search for and find valid conclusions from their concepts of environmental phenomena.

Predicting Consequences: The next higher form of thought is using one's conceptual structure to anticipate future events and thus to make preparations for them, or even to plan so as to bring about certain events to serve his purposes. Every decision is first of all a prediction, on the basis of which the person governs his overt actions. Decision-making behavior can be cultivated first by stimulating students to predict consequences from their antecedent conditions, and then by stimulating them to act on their predictions and test them in empirical trial. Students can be led by a set of classroom conditions to engage in prediction. When this is done, the classroom conditions are beginning to affect out-of-school behavior.

N.B. Inventing and Creating: The essence of invention and creation is the use of imagination in the forming of mental constructs and in giving physical expression to those creative constructs. Imagination is constructive when it produces something surprising and unexpected, and when the form of what it produces conforms to principles of usefulness or criteria of aesthetic quality. This form of response is cultivated when students are encouraged to recognize their own imaginative ideas and feelings and to express them effectively.

6. Eliciting Decision Making

Decision Making: Personal or Vicarious: At this point, the person moves from the input and thinking phases of the behavioral cycle toward an overt instrumental response. He does this by applying his concepts to an immediate and specific situation which places upon him a demand for some kind of adjustive reaction. A decision is an actual commitment to action, not the mere speculation about "what might happen if." Decisions are "for real." Until the person steps across the speculation line and becomes engaged "for real" in some situation, he is just playing a game with nothing really at stake. Therefore, there will be no impact on him to reinforce or deinforce his behavior, and consequently his out-of-school behavior will not be affected. Anything short of this consists only of one of the preceding stages of conceptual activity. A classroom situation cannot produce a real decision until it puts the student in a real situation with real consequences for him, directly related to his concepts and the way he responds. "Academic" consequences, such as a mark, or a public embarrassment for making a thoughtless or inappropriate statement, do not fulfill this condition. They are part of academic behavior, but not of the out-of-school behavior education is intended to affect. Usually, an experience is most effective if it is personal, but sometimes a student can become so much involved in a vicarious experience with some other person that he begins to feel all of the normal involvements. When this occurs, his own behavior can be affected.

7. Eliciting Execution of a Decision: Trial is the actual execution of a decision, either in person, or by imaginatively acting out the behavior of another person under intensely empathic conditions. Each time a decision is executed, the concepts and values that led to it are tested empirically in the act and the consequences which follow it. Feelings are produced, and they give rise to value conclusions, and thus to motives. Thus behavior is intensely affected. Conditions which permit real trial actions may be difficult to create in school. This presents educators with one of the most challenging tasks yet to be successfully handled.

8. Eliciting Perception of Consequences of a Response: Although all real acts produce consequences, some of them are more immediately evident than others. The shaping power of behavior depends largely on whether the consequences are evident, so the person can become aware of them. Good classroom conditions in this respect are those that make the consequences sufficiently evident to be perceived. Consequences not perceived by the behaver will have no shaping effect on his concepts and values, or on his behavioral competencies. Good classroom conditions in this respect are those that help students become aware of the consequences and perceive them fully and accurately. It is necessary for the behaver to perceive them himself. Being given a verbal moral conclusion

by someone else is not effective. Directing his attention to the actual consequences is much more effective.

9. Dispensing Verbal Information and Eliciting Verbalistic Responses to It: If this is going on, there is probably no behavioral and conceptual activity on the part of students. The classroom setting is verbalistic, not behavioral. Students are of necessity reduced to a passive status. Their only useful response is to try to remember what is being dispensed. Rehearsal of verbal information is dominantly a memorization and repetition process. Some meaning usually accompanies it, because students already have some concepts related to the information, and those they have they will tend to recall. The more concepts they are stimulated to recall, the more meaningful the information will be to them; and the fewer concepts they recall, the more meaningless the information will be. Dispensing of information by a teacher is not a very educative process, even under the best of conditions.

Describing: In place of letting students perceive something themselves, the teacher in this case substitutes his own verbal description of it and assumes the students can learn about the subject from his description. When a teacher uses description in place of actual perception and recall, he becomes the most active party because he takes over and talks. The student becomes relatively passive, since he has to listen. Even when it is well done, teacher description is much less potent than direct perception by students themselves.

Giving Data: This refers to any form of dispensing factual information in verbal form, whether written or oral, in contrast to more vivid describing, or the still more potent use of direct perception. Data consist primarily of the kind of information we record in the form of numbers, names of places or lists of things, dates, and the like. Such material is not educative, and it can be mastered only by memorization. When it is provided, it should be clearly shown to belong to some concept the students understand.

Stating Conclusions: This line is used when a conclusion is offered to students without understanding on their part of the circumstances and the premises on which it is based. In this case the teacher has done the thinking (presumably), and the students are merely to receive the resulting conclusion. They have two alternatives, to believe the teacher's conclusion or not to believe it; but they have no basis for understanding it.

Stating Predictions: This line will be checked only when the teacher offers a student a prediction of what will follow from a given situation without providing opportunity for the student to perceive the situation and discover for himself the concepts that enable him to make the prediction himself. For example, the teacher may say, "If we withdraw from Country X, the Communists will take over." The basis for the prediction is not given, so there is no way to think about it.

Stating Moral Precepts: This line is used when the teacher makes a moral value statement without support for it. For example, "Parents should never spank their children," or "It is wrong to tell lies," or "We should not withdraw from Country X." Again, students can only accept or reject such statements; they cannot understand the reasoning that produced them, since it is not provided to them.

10. Using Response-Control Devices and Eliciting Student Responses to Them. This may consist of:

Prescribing-Regulating: This refers to the imposition of regulations which students are expected to follow without having the students participate in making the regulations or exploring the grounds for them. Students can only obey or disobey the regulation, so it tends to control their behavior without understanding on their part.

Criticizing or Disapproving: This is a slightly stronger form of pressure to control behavior, since it infers that there is a norm or criterion which is being violated, and since it also expresses the teacher's direct antagonism to the violation. This line is used when the criticism or disapproval becomes personal or when it expresses rejection without constructive analysis.

Physically Managing: This is a still stronger form of control, even when it is done gently and with no sign of emotion. For example, the teacher takes hold of a student and puts him in his seat, or takes something away from him. There may be times when this can be constructive, but ordinarily it inhibits thoughtful self-management, and is highly dominative.

Commanding: This refers to an explicit command to do something. This is a stronger form of control than prescribing, or criticizing, or even mild forms of physically managing, since it is peremptory and conveys a need for absolute conformity.

Threatening: This refers to a verbal or nonverbal communication of intent to inflect some form of deprivation or punishment, and since it is punitive in nature it carries still more controlling force by stimulating a fear reaction.

Aggressive Forcing: This refers to an actual aggressive act of control. It may take several forms: social ostracism or bribing one with social status, monetary loss or a monetary bribe, physical punishment, imprisonment or confinement, loss of privileges or granting of special privileges, and so on. In excessive form, these aggressive acts can become very powerful means of controlling behavior.

Note: Devices 4 to 8 tend to be highly educative and low in control by any form of force or persuasion. Devices 9 and 10 tend to be low in educational value and high in control value. The influences in 4 to 8 are exerted by means of learning materials to which students can react by perception and thinking, so they tend to bring students into activity and allow the teacher to drop into the background as a planner and consultant. Devices 9 and 10 cause the teacher to be the most active person, and the students to become more and more passive and less thoughtful. However, none of this is to say that devices 9 and 10 should never be used. Devices should be used when the situation makes them possible or requires them, and the selection of a device must be made in the light of a specific situation and goal.

III. WORKING CLIMATE AND TEACHER-PUPIL COMMITMENT TO TASKS

11. Meaning and Significance of Tasks: The important condition here is that learning tasks be sufficiently clear to students and have enough evident importance so that students find them interesting to work on and know how to go about them.

12. Personal Reactions to Pupils: This refers to purely personal responses of the teacher to the pupils, either spoken or nonverbally communicated, and apart from the interactions that may come and go with different working tasks. Watch for the teacher's stable and continuing reaction to any one pupil or to the whole class, not the fluctuations that may occur in connection with some specific episode.

13. Teacher-Pupil Working Rapport: This refers to the warmth or coldness of the personal relationships that exist when a learning task is going on. For example, a teacher who is not particularly interested in her pupils as persons might nevertheless manage to maintain a fairly warm working relationship while she is taking them through a given learning experience. The reverse is also possible.

14. Teacher's Personal Commitment: An obviously committed teacher tends to stimulate commitment in students. This is estimated by the amount of contagious enthusiasm and vitality transmitted by the teacher, in tone of voice, in physical expression, in amount and kind of activity, and in other evidence that the teacher likes the subject matter and enjoys working with it.

15. Degree of Individuation: Individuation of learning becomes possible when the conditions in a given lesson are such that each pupil can and does start where he is ready and moves along at his own rate, getting individual help when he needs it. If the conditions require that the pupils all do the same thing at the same time as a group, individuation is impossible. This is not to say that small groups of pupils may not work together if they are all ready for a given task. In most instances the condition will be somewhere between the two extremes, but full individuation should be achieved as soon as we can create the supporting conditions for it.

16. Level of Pupil Arousal: When students are genuinely aroused they tend to take over the activity and become self-directive inquirers and actors. This level of response affects behavior quite directly and powerfully. As the condition degenerates to passive reception and finally to inattention, the power to affect behavior drops and then disappears entirely.

17. Detection and Alleviation of Gaps--those directly related to objective of the lesson: In most lessons, some students lack some of the prerequisite concepts or competencies for getting into the lesson with understanding and a reasonable chance of success. Where there are such gaps, the teacher can either detect them and take steps to help a pupil fill them in, or he can reformulate the learning task for that student, giving him one in which he is ready to go ahead. Was the teacher aware of such cases, and was anything done to remedy them? Were they discovered and alleviated, or discovered but not alleviated, or not even recognized?

18. Reinforcement of Pupil Behaviors: Reinforcement is accomplished by some form of immediate feedback to a pupil regarding his response. It might be in the form of information about how well he responded, or encouragement for trying, or any kind of communication that enables him to maintain his response or change it. It may be positive or negative. It may also correctly inform him, or unintentionally misinform him and thus mislead him. Reinforcement is a powerful force in changing behavior.

IV. VERBAL-CONCEPTUAL RATIOS AND BALANCE

19. Teacher-student Verbal Ratio: This is intended to show who is doing the talking. An estimate will serve most of the time. For greater precision one of the available recording schemes such as the Flanders-Amidon technique may be used.

20. Verbalism-meaning Ratio: This is intended to show the extent to which the talking is meaningful or meaningless to the pupils. The recorder will need to be cautious about mistaking accurate responses due to memorization for comprehension on the pupil's part. Meaningless talk has no power to affect behavior.

21. Data-concept Relations: Data should always be subordinate to a concept or a behavior which is being acquired. If data are being discussed independently of a concept, they will be difficult to associate with their appropriate concepts, or to remember, or to find useful in behavior.

Chapter 6

MAKING AN ANALYTICAL RECORD OF TEACHING BEHAVIOR

Before we can measure successfully the quality of a person's teaching we must learn to describe what is going on. Furthermore we must learn to describe it so reliably that two or more observers can agree on what they see happening in a classroom. In order to do that, the observers would have to have a recording instrument on which they could check what they observe. To avoid ambiguity the instrument should have a separate place to record each kind of teaching behavior included in the schema or code being used as an observation guide.

With that kind of instrumentation, the observers are then ready to make a record of a teaching episode, compare their records, and learn how to arrive at similar recordings for any given teaching episode. It is important to remember that we are talking here about describing the teacher's behavior, not evaluating it. Only after we can describe teaching episodes in terms of an adequate teaching behavior code, and describe them with high reliability, can we begin to study their effectiveness. At present we are not prepared to evaluate teaching objectively. If this code proves to provide adequate coverage of the critical behaviors of teaching, and if we can use it with high inter-recorder reliability, we may then be ready to start evaluating teaching in terms of its effect on the behavior of students.

This chapter contains the recording instrument for the guide in Chapter 5. Each descriptive paragraph in the guide is represented by an item in the recording instrument. In early uses of this instrument it seemed most helpful to record by means of tallies, making one tally for each observed classroom condition. Such a procedure assumes that the teacher is responsible for the conditions that exist in the room. If this assumption is valid, then we would literally be recording the teaching behavior of the teacher in terms of what he is producing in the classroom. It is of no real importance what specific tactics or methods he used to produce it. What counts is the set of conditions that exist in the room, because those conditions determine the kind of experience the students will have and therefore what effect will be produced on their behavioral patterns.

By this reasoning we can say that both the guide and the instrument are made up of teaching behaviors of which there are four major kinds as described in Chapter 1. The code outline in Chapter 1 presents twenty-one specific sub-behaviors, all of which are described in brief descriptive paragraphs in Chapter 5 and are represented by recording spaces in the instrument in this chapter. Experience has shown that only a small amount of trial and practice is required to overcome the initial unfamiliarity with the instrument and record with confidence, provided the observer is familiar with the descriptions which precede it.

ANALYTICAL RECORD OF TEACHING

Teacher____________________

School____________________

Date____________________

Grade____________________

Subject____________________

Pupils: Boys__________ Girls__________

Length of Time____________________

Description of Lesson____________________

____

____

____

Observer____________________

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A TEACHING BEHAVIOR CODE

I. THE LEARNING TASKS

1. The Intended Pattern of Operation
   - A. A carrier project with contributing learning units:__________
   - B. A terminal learning objective:
     (1) Behavioral__________ (2) Conceptual__________ (3) Informational__________
   - C. Objective-free activity:
     (1) Direct perceptual inquiry__________ (2) Verbal inquiry__________

2. Intended Influence System:
   - A. Direct student response to task and materials:__________
   - B. Student self-response to directions:__________
   - C. Direct teacher conduct of the process:__________

3. Materials

A. Relevance to the tasks	High	Low
B. Effectiveness for the tasks	High	Low
C. Availability to students	High	Low

III. WORKING CLIMATE AND TEACHER-PUPIL COMMITMENT TO TASKS

11. Meaning & Significance of Tasks	Clear/Stimul.	Clear/Accepted		Unclear
12. Personal Reactions to Pupils	Strong +	Neutral		Strong -
Approval-Disapproval				
Acceptance-Rejection				
Affection-Disaffection				
Compassion-Hostility				
Interest-Disinterest				
Defense-Aggression				
13. Teacher-Pupil Working Rapport	Warm	Adequate		Cold
14. Teacher's Personal Commitment	Vital/Excit.	Active/Interesting		Listless
15. Degree of Individuation	All Individualized			All Grouped
16. Level of Pupil Arousal	Active Self-Direction	Responsive Participation	Passive Reception	Inattention
17. Detection & Alleviation of Gaps	Alleviated	Perceived/Not Allev.		Not Perceived
18. Reinforcement of Pupil Behaviors (P=Positive N=Negative)	Always	Sometimes		Never

IV. VERBAL-CONCEPTUAL RATIOS AND BALANCE

19. Teacher-Student Verbal Ratio	All Student 100%	50%	All Teacher 100%
20. Verbalism-Meaning Ratio	Meaningful 100%	50%	Verbalistic 100%
21. Data-Concept Relations	Fully Related 100%	50%	Fully Unrelated 100%

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II. PATTERN FOR ELICITING RESPONSE TO THE LEARNING TASKS

(A) DEVICES USED TO INFLUENCE STUDENT BEHAVIOR	(B) STUDENT RESPONSES
4. ELICITING PERCEPTION	Perceiving
Requiring Identification and Differentiation of Referents That Are Present	
Requiring Description of Referents That Are Present	Describing Analyzing
5. ELICITING CONCEPTION	Reviewing & Organizing
Requiring Recall of Referents Not Present	Interpreting & Explaining
Requiring Organization or Reorganization of Concepts	Concluding
Requiring Predictions of Consequences	Predicting Consequences
6. ELICITING DECISION MAKING	
In a Personal Task or Project	Personal Decision Making
Via Vicarious Involvement	Vicarious Decision Making
7. ELICITING EXECUTION OF A DECISION	
In a Personal Project	Personal Execution of Project
Via Vicarious Involvement	Vicarious Execution of Project
8. ELICITING PERCEPTION OF CONSEQUENCES OF A RESPONSE	
In a Personal Task	Recognition of Consequences of Personal Acts
Via Vicarious Involvement	Recognition of Consequences of Other Actions
9. DISPENSING VERBAL INFORMATION AND VERBALISTIC RESPONSES TO IT	
Describing	Auditing without Comprehension
Giving Data	
Stating Conclusions	Memorizing
Stating Predictions	
Stating Moral Precepts	Reciting Memorized Materials
10. USING RESPONSE-CONTROL DEVICES AND STUDENT RESPONSES TO THEM	
Prescribing/Regulating	Resentment
Criticizing/Disapproving	
Physically Managing	Submission
Commanding	Rebellion
Threatening	
Aggressively Forcing	Withdrawal

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Chapter X

Developing a County Program for Evaluating Teaching*

in Elementary and Secondary Schools

SUGGESTED PROCEDURES

Some people say that teaching cannot be evaluated. Others say that teaching can be and should be evaluated but maintain that such evaluation is not taking place.

IT seems apparent, however, that teaching is continually being evaluated by teachers, by pupils, by administrators, and by parents. After teaching a particular lesson once, a teacher makes his decisions regarding how to teach the lesson the next time on the basis of his evaluation of the first lesson. A high school pupil advises his friend to elect or avoid classes taught by a particular teacher on the basis of his evaluation of the teaching done by that teacher. A principal recommends a teacher for continuing contract on the basis of his evaluation of the teaching done by that teacher. A parent who selects or rejects a certain neighborhood because of good or poor schools bases his choice on his evaluation of the teaching which takes place in those schools.

The plain fact is that evaluations of teaching constitute the primary basis for making virtually all decisions about schools and about teachers. This is manifest. Teaching is the mission for which teachers and schools were invented. Teaching is constantly evaluated.

Why Does the Evaluation of Teaching Appear to Be a Problem?

The problem is not that teaching cannot be evaluated or is not being evaluated. The basic difficulty stems from the fact that all persons who evaluate teaching are not looking for the same thing. The teacher may be looking for certain specific verbal or written responses from pupils. The pupils may be satisfied if the teaching holds their interest and may be dissatisfied if it does not (regardless of what they may or may not have learned). The principal may feel that if the classroom is orderly, the teacher poised, and the pupils attentive, the teaching is effective. The parents may evaluate the teaching favorably if a substantial portion of the pupils score above the seventy-fifth percentile on standardized tests. Consequently, the teacher rated as superior by one evaluator may be viewed by another as only average.

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*By K. Fred Daniel, Associate in Teacher Education, State Department of Education, Tallahassee, Florida. First issued as an M-Step sponsored bulletin by the State of Florida, 1967.

The evaluation of teaching has been recognized as a problem because different evaluators view teaching with different frames of reference.

How Can a County Begin?

If the process of evaluating teaching is to lead to improved instruction, the teacher whose work is being evaluated must comprehend the frame of reference from which the evaluation is instituted. Moreover, there should be assurance that the particular frame of reference is justified in terms of educational objectives for the specific grade, subject, and type of pupils being taught by that teacher.

The first thing needed in developing a county evaluation program is a set of general policies. It is suggested that a broadly based committee be appointed for the purpose of developing such policies. This committee would be composed of teachers, principals, supervisors, and other personnel. It would be responsible for overseeing the development of the county program for evaluating teaching.

This committee, however, would not be able to devise the complete program. It would not be presumed that this broadly based committee would possess the competencies necessary to develop sets of criteria and procedures appropriate for evaluating teaching within the many different curricular areas and levels included in the school program. Special committees would be required. These committees would be composed of teachers and supervisors within the specific area involved, with the possible addition of one or more principals or other "generalists." The special committees would, in effect, be subcommittees of the general committee.

Activities of Broadly Based County-Wide Committee

1. Prepare a statement of purposes which the evaluation program is intended to fulfill. Such a base to work from is essential for the committees which will develop the criteria and procedures. For example, if the evaluation program is intended to help teachers to improve their

instruction, it would be necessary for committees to provide for conferences or other means through which the teachers can obtain the necessary feedback.

2. Subdivide teaching assignments within the county by subject and/or grade and/or by characteristics of pupils served. It might be that subdivisions would be along grade lines at the elementary level and along subject lines at the secondary level.

3. Appoint special committees for each of the subdivisions. Set forth such additional guidelines as are appropriate for keeping committees on the right track. Set up a timetable including the items listed below. A period of four to eight weeks should be allowed for each of these steps.

a. Deadline for completion of the statement of the general type of criterion to be employed (viz., whether it will be based on teaching processes, teaching products, or a combination of the two). This statement should also include an explanation of the rationale for selecting the particular type of criterion.

b. Deadline for completion of an explicit statement of criteria to be applied and procedures to be followed in applying them.

c. Deadline for completion and evaluation of a trial application of the evaluation program.

d. Deadline for presentation of a "validated" evaluation program for transmission to the county superintendent.

4. In general, the committee should keep informed of activities of each of the special committees.

Activities of the Special Committees for Developing Evaluation Criteria and Procedures

The deadlines discussed above comprise an outline of the activities of the special committees. The basic role of each special committee is to use whatever resources it has available to devise an evaluation program for a special area or grade which will fulfill the purposes established by the general committee and which will also meet the criteria for assessing evaluation programs which are discussed later in this chapter. The committees might wish to make use of consultants from colleges and universities or from other school systems.

It is proposed above that each evaluation program be "validated." This means that the evaluation procedures should be tested in as many situations as possible before they are submitted to the county superintendent. It is likely that a valid indication of the relevance, reliability, interpretability, and equity of a program can be obtained only through field testing. A "validated" program is one which appears to meet those criteria.

Is a "Validated" Evaluation Program Subject to Revision?

It is unlikely that even the persons who devise a set of evaluation procedures will be fully satisfied with them. The art of evaluating teaching is still in a rudimentary state. Thus, any evaluation programs which will be developed will be subject to revision, no matter how carefully it has been "validated."

GUIDING PRINCIPLES

A failure to answer fundamental questions seems to be one probable cause for much of the confusion which exists concerning the evaluation of teaching.

If evaluators could agree on some basic premises, it is much more likely that they could reach some agreement on their evaluations. Basic questions such as those discussed below must be answered clearly and satisfactorily.

It should be noted at the outset that research on teaching has been of very little help in providing principles for guidance in evaluating teaching. Many studies have been conducted which attempt to isolate the factors which make an individual teacher effective or ineffective.[2] Unfortunately, however, these studies have yielded little knowledge with practical applicability. This fact has been attested by several writers. Remmers concludes that reports of research on teaching contain little information "that a superintendent of schools can safely employ in hiring a teacher or granting him tenture, that an agency can employ in certifying teachers, or that a teacher education faculty can employ in planning or improving teacher education programs."[3] Turner and Fattu state that, "Seventy years of research on teacher effectiveness have not added much to our systematic knowledge, and it is difficult to see how another seventy can do any more if the same procedures are followed."[4] Other writers expressing dissatisfaction with research results and methodology include Barr and Jones,[5] Mitzel,[6] and Ryans.[7]

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[2] S. J. Domas and D. V. Tiedeman, "Teacher Competence: An Annotated Bibliography," *Journal of Experimental Education*, Vol. 19 (December 1950), pp. 101-218; J. E. Morsh and E. W. Wilder, *Identifying the Effective Instructor: A Review of Quantitative Studies, 1900-1952* (Research Bulletin No. AFPTRC-TR-55-44, San Antonio, Texas: United States Air Force Personnel and Training Center, 1954).

[3] H. H. Remmers, *et al.*, "Second Report of the Committee on Criteria of Teacher Effectiveness," *Journal of Educational Research*, Vol. 46 (May 1953), p. 657.

[4] Richard L. Turner and Nicholas A. Fattu, "Skill in Teaching, Reappraisal of the Concepts and Strategies in Teacher Effectiveness Research," *Bulletin of the School of Education, Indiana University*, Vol. 36 (May 1960), p. iii.

[5] Arvil S. Barr and Robert E. Jones, "The Measurement and Prediction of Teacher Efficiency," *Review of Educational Research*, Vol. 28 (June 1958), pp. 256-264.

[6] Mitzel, "Teacher Effectiveness," *Encyclopedia of Educational Research*, ed. Chester W. Harris (New York: The Macmillan Company, 1960), pp. 1481-1486.

[7] David G. Ryans, "Theory Development and the Study of Teacher Behavior," *Journal of Educational Psychology*, Vol. 47 (December 1956), pp. 462-475.

Thus, it can be safely affirmed that past research provides little evidence as to what constitutes effective teaching. Because of this, individual school systems must rely mainly on the best practical judgment they have available in order to devise a framework for evaluating teaching. Teachers, supervisors, and administrators, with possible assistance from consultants from colleges and universities or from other school systems, are the ones who must answer the basic questions discussed in the subsequent paragraphs.

What Is Evaluation?

Evaluation is the act of assigning a value. It is what the meat inspector does when he grades meat. It is what the used car dealer does when he sets a price on a car. It is what the teacher does when he assigns marks to pupils. It is what the music critic does when he writes his review. Likewise, it is what is done when a pupil, teacher, administrator, or parent makes a judgment about the quality of teaching in a given classroom.

In all of the above cases, there are two ingredients which are essential if evaluation is to take place. The first is a set of criteria or standards against which the thing being evaluated can be measured. In each of the above examples, the evaluator has in his mind a set of criteria or standards which serves as a model to which he relates his observations. If two persons evaluating the same thing do not agree on their evaluation, it could be that they are using different criteria. Stated differently, when two persons evaluating the same thing do not agree, they may be using a different model. (The terms ''criteria,'' ''standards,'' and ''model'' are intended to connote basically the same concept).

The second essential ingredient for evaluation is evidence. The information which the evaluator relates to the model constitutes evidence. The meat inspector might study the color of the meat and the distribution of fat. The used car dealer's evidence will include such things as engine condition, make and model of the automobile, odometer reading, and the age of the vehicle. The teacher will consider such things as daily work, test results, and special projects. The music critic will consider such things as intonation, phrasing, technique and pacing. When the pupil, teacher, administrator, and parent evaluate teaching, they will collect whatever evidence they deem relevant to their criteria. If their criteria were the same, their evidence should relate to the same aspects of teaching.

Disagreements on interpretations of evidence can be resolved by collecting additional data–presuming, of course, that prior agreement has been reached on the criteria or standards. When agreement is not reached as to which criteria are to be considered relevant, any subsequent agreements on the matter of evaluation are purely coincidental. This includes agreements on the nature of the evidence which should be collected, agreements on the interpretation of the evidence which is collected, and agreements on the final evaluation.

The first guiding principle can be summarized as follows:

> *Principle I: Criteria and evidence are the two elements which are essential in order for evaluation to be possible. Evaluation takes place when evidence is compared with selected criteria (i.e., the model). Unless agreement can be reached as to which criteria should be applied, any agreement on the evaluation is purely coincidental.*

What Is Good Teaching?

How can good teaching be recognized? Or, more precisely, what constitutes acceptable criteria for evaluating teaching? Are some criteria more worthwhile than others?

To answer these questions it is necessary to make one or more value judgments. Teaching which is effective does not exist independently but is an artifact created when an independent or collective value judgment is made. Rabinowitz and Travers assert that "No teacher is more effective than another except as someone so decides and designates . . . . The ultimate definition of the effective teacher does not involve discovery but decree."[8] Ryans[9] agrees that no type of criterion of effective teaching possesses intrinsic goodness. He states that the worthiness of any given set of criteria is dictated by the values of the specific culture which the teaching is intended to serve. The wisdom of judgments on the criteria of effective teaching is certain to be enhanced if the influence of knowledge and experience are brought to bear.

The people who are best qualified to make judgments as to what constitutes good teaching in any given situation are those with (1) knowledge of the objectives which the teaching is supposed to fulfill, (2) knowledge of the situation in which the teaching will take place, and (3) knowledge of ways in which the teaching objectives can be accomplished.[10]

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[8] William Rabinowitz and Robert M. W. Travers, "Problems of Defining and Assessing Teacher Effectiveness," *Educational Theory*, Vol. 3 (July 1953), p. 212.

[9] David G. Ryans, *Characteristics of Teachers: Their Description, Comparison and Appraisal* (Washington, D.C.: American Council on Education, 1960), p. 16.

[10] This argument is developed in some detail by Cemal Yildirim in "An Analytic Model for Evaluation of Teacher Competence" (unpublished Ph.D. dissertation, Indiana University, Bloomington, 1963), pp. 95-102.

Criteria which are established without consideration of the realities of teaching objectives, teaching situations, and teaching methods are likely to be capricious.

The place to begin in developing criteria for evaluating teaching is with the goals which the teaching is expected to accomplish. The teaching which contributes to the attainment of these goals is considered effective. It is the job of those assigned the responsibility for developing criteria to determine what type of teacher behavior is most likely to achieve these goals and/or to determine what kind of pupil behavior might constitute a valid index of the contributions of the teacher to these goals. Because specific goals vary between subjects, between educational levels, and with different types of student populations, it is probable that several different sets of criteria will be required. The number of sets of criteria to develop and the composition of the groups to which they will apply must be decided before groups are assigned to prepare statements of criteria for possible adoption.

The second guiding principle is stated as follows:

> *Principle II: Criteria for use in evaluating teaching are the product of a value judgment which cannot be objectively validated. However, once the objectives of the teaching program have been identified, the persons with the greatest familiarity with the situation in which the teaching is to take place are the ones who are best qualified to define the criteria.*

What Kind of Evidence Should Be Collected?

The type of evidence collected is dictated by the criteria which have been established. It is unreasonable to set out to determine specifically what kinds of evidence should be collected until after the criteria have been defined. On the other hand, it is unwise to devise criteria without having in mind the general type of evidence which would be required to employ them.

The types of evidence which have been collected in the past can be placed into three classifications. The first type consists of traits possessed by the teacher such as "amount of education," "honesty," or "pleasant personality." These can be called status variables as they describe characteristics of the status of the teacher. It is possible to collect this type of evidence without ever seeing a teacher in a teaching situation. It is worth noting (although, it may seem facetious) that through the use of status traits, it would be possible to evaluate the "teaching" of someone who has never taught. While status characteristics may be of some value as predictors, there is no reason to use them when evidence obtained during or following an actual teaching situation can be obtained.

Thus, criteria which imply evidence based on status should be seriously questioned.

The second classification includes those things which occur during teaching. Examples include "asks open-ended questions," "arrests pupil attention without relying on authority," or "states assignments clearly." These are called process variables. Evidence of this type must be collected in a teaching situation.

The third classification includes those things which occur following teaching and presumably as a result of teaching. Examples include "can spell correctly all the words in the lesson," "can explain clearly the purposes and organization of the Federal Reserve System," or "can write a poem." These are called product variables. Evidence of this type can be collected both during and after the teaching situation.

Both process and product variables are appropriate for evaluating teaching. Many researchers have declared that criteria calling for product measures–namely, changes in the behavior of pupils–constitute the ultimate criteria of teacher effectiveness. On the other hand, many persons maintain that factors other than the influence of the teacher contribute significantly to changes in pupil behavior. Thus, they feel it is not possible to evaluate the work of a teacher solely in terms of the achievement of his pupils. In the domain of the local administrator or other instructional leader (as contrasted with the domain of the researcher),[11] criteria calling for process evidence are of particular significance.

The third guiding principle summarizes the above ideas.

> *Principle III: The nature of the evidence required for evaluating teaching is dictated by the criteria selected. The evidence used can relate either to the process of teaching or the product (results) of teaching. Status characteristics of teachers (which can be measured without observing the teaching or the results of the teaching) do not constitute appropriate evidence for evaluating teaching.*

How Can Evaluation Programs Be Evaluated?

What are the characteristics of a sound evaluation program? How can a good program be distinguished from a poor one?

There are four factors which should be considered in evaluating an evaluation program. The first is the relevance of the criteria and the evidence. Relevance refers to the extent of the relationship existing between the criteria for evaluating teaching and the goals of the educational program. If these goals formed the initial basis for developing the criteria, the criteria should be relevant. If the criteria evolved in some other manner, the matter of relevance should be studied very closely.

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[11] William J. Ellena, Margaret Stevenson, and Harold Webb (eds.), *Who's a Good Teacher?* (Washington, D.C.: American Association of School Administrators, 1961), pp. 5-6.

The second factor is interpretability. Interpretability refers to conditions which allow the evidence collected to be organized and analyzed in ways which will yield information that can be used for desired purposes. Section 231.29(2) of the Florida Statutes states that evaluation will be conducted "for the purpose of improving the quality of instruction, administrative and supervisory services." An evaluation program will be likely to yield interpretable data if the persons who are to use the information from the evaluation program – namely, the teachers and administrators – are involved in its development and understand clearly the purposes for which the information will be used. Because of variations between teaching objectives and teaching methods at different levels of instruction, it is probable that several different sets of criteria will have to be developed to insure interpretability.

The third factor is reliability. In this case, reliability refers to the consistency between evidence collected and behavior observed. If two evaluators observe the same teaching situation, their observations and evaluations should display a high level of agreement. This, of course, is much less of a problem if all evaluations are to be made by one individual. The problem then is only for him to be consistent from one observation to the next. Multiple observers compound this problem and it is usually necessary to conduct several training sessions to obtain reliable results.

The fourth factor is equity: the evaluation program must be equitable. The criteria must not discriminate against a person with one particular teaching style unless it is agreed that his style is one which is not appropriate for accomplishing the objectives of the educational program. Normally, the problem of equity can be handled by providing for diverse representation within the group which develops the criteria.

The fourth guiding principle, which relates to the evaluation of evaluation programs, is as follows:

> *Principle IV: A sound evaluation program should provide information on teaching which is relevant, reliable, and interpretable. It should also be developed in a manner which will allow it to treat all persons whom it affects in an equitable manner. Beginning with educational goals and insisting upon the involvement of the people who are familiar with the situations in which the evaluation program will be applied and who will make use of the information should contribute to the attainment of these characteristics.*

TECHNIQUES FOR COLLECTING EVIDENCE AND COMPARING IT WITH CRITERIA

It has been pointed out that criteria of effective teaching must be accepted or rejected on the basis of value judgment.

While this judgment is more likely to be valid if careful consideration is given to the teaching situations in which the criteria will be applied, it remains that the judgment is to a certain extent a matter of personal preferences. Once the criteria have been determined, however, the development of procedures and techniques for collecting evidence is primarily a technical problem. Considerable work has been done in the development of observation and examination techniques. Hence, persons in county school systems who are responsible for prescribing the methods by which evidence will be gathered should become familiar with various techniques including rating, categorizing, and testing.

What Is Rating?

Rating is a process whereby an observer collects and analyzes evidence and compares it with criteria without making any record of the evidence itself. In other words, the observer simply records his value judgment. Take as an example an evaluation criterion stipulating that it is desirable to give encouragement to students. If a rating technique were employed, the evaluator might simply indicate, using a five-point scale, that the teacher encouraged the pupils either "always," "much," "some," "little," or "never." If a system other than rating were used, the observer might record (in some type of "shorthand") instances in which the teacher gave encouragement.

Rating scales are by far the most widely used devices for evaluating teaching performance for both research and administrative or supervisory purposes. At least in the case of administrative and supervisory situations, this condition is likely to persist. The evidence which must be reviewed to determine whether or not teaching is effective is invariably extensive and subtle with numerous complexities which are difficult to catalog in advance. In most cases, it has not been deemed practical to utilize objective procedures for reducing the vast amount of data. Thus, raters have been required to reduce the data to that which is significant and, in the same operation, to compare this evidence with the relevant criteria. When this occurs, summarizing and processing of evidence takes place entirely within the mind of the observer and only his conclusions are available for scrutiny. Hence, neither the data reduction process nor the evaluation process can be examined. If a case developed in which two "experts" evaluating the same teaching provided different evaluations, it would be a matter of speculation as to whether the discrepancy resulted from their selecting different evidence to process or from their applying different criteria in evaluating (unless, of course, the evaluators were available for questioning).

Fortunately, the evaluation process employing rating scales need not be so mercurial as the foregoing implies. The stability of results obtained with these scales can be controlled by controlling both the type and quantity of information to be processed and the processing itself. This can be done by providing sufficient descriptive material with the rating form to orient the user, by constructing a rating instrument composed of specific rather than general scales, and by constructing the individual scales carefully. Discussions of technical considerations in rating scale development and the literature relating to their use are presented by Guilford[12] and Remmers.[13]

An obvious technique for improving the reliability of ratings involves the training of raters. Such training could consist of a thorough orientation into the type of evidence which is to be considered significant and the type of criteria which are to be employed in analyzing it. This would be followed with practice in employing the scale including opportunities for comparing and discussing the ratings assigned. Practice sessions can be repeated until the desired level of reliability is reached.

Can The Collecting of Evidence and the Process of Comparing It with Criteria Be Separated?

There are at least two reasons why consideration should be given to the possibility of separating the process of collecting evidence from the process of comparing it with criteria. The first relates to the problem of determining whether disagreements in evaluative judgments result from disagreements on criteria or from differences in the evidence selected. The second reason is that information on specific behavior is quite effective in helping teachers to modify that behavior. If the teacher can know what he did, as well as what the evaluator thought of what he did, he is in a much better position to modify that behavior (if modification is needed). A dramatic example of this is the effect of providing a teacher with a complete record of his teaching in the form of a videotape playback.

It was stated earlier that research has been of little help in identifying criteria for use in evaluating teaching. However, there are a number of writers who express optimism for the future of research on teaching.

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[12] J. P. Guilford, "Rating Scales," in his *Psychometric Methods* (New York: McGraw-Hill Book Company, 1954), pp. 263-301.

[13] H. H. Remmers, "Rating Methods in Research on Teaching," *Handbook of Research on Teaching*, ed. N. L. Gage (Chicago: Rand McNally and Company, 1963), pp. 329-378.

This optimism is based primarily on recently adopted techniques for analyzing the dimensions of teaching and learning and for collecting data on classroom processes. Many of these observation techniques are also applicable for evaluating teaching in ongoing programs.

The most widely used of the newer observation systems are the Observation Schedule and Record (OScAR)[14] by Medley and Mitzel and the interaction analysis system developed by Flanders.[15] Either of these systems might be used as examples for developing procedures for collecting evidence which is appropriate for the criteria selected.

The general procedure for developing a category system is to determine first which aspects of teacher or pupil performance are relevant (on the basis of the criteria adopted.) The second step is to categorize those elements so that they can be objectively reported by an observer. An alternative, of course, is to locate a category system already in existence which can be adapted to the evaluation program.

Either of two different types of observation schedules can be used.[16] The first is called a category system. With this approach a list of relevant categories is devised. Normally these categories will relate to a specific dimension of behavior (such as verbal interaction). This list is presumed to be exhaustive from the standpoint that every unit of behavior which is witnessed by the observer can be placed in one of the categories. The completed observation record shows the total number of behavior units and the number classified in each category. The Flanders interaction analysis system is an example of the category type of observation schedule.

The second approach to constructing an observation schedule is called the sign system. With this system, a list of behaviors which may or may not occur is compiled. The observer then tallies those behavior units observed which meet the category definitions. It is not assumed that all behaviors which occur during the process of observation will be recorded. An example of a sign system is included in the *Teacher Observation Record.*[17]

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[14] Donald M. Medley and Harold E. Mitzel, "A Technique for Measuring Classroom Behavior," *Journal of Educational Psychology*, Vol. 49 (April 1958), pp. 86-92.

[15] Edmund Amidon and Ned A. Flanders, *The Role of the Teachers in the Classroom: A Manual for Understanding and Improving Teachers' Classroom Behavior* (Minneapolis: Paul S. Amidon and Associates, 1963).

[16] For a more complete discussion see Donald M. Medley and Harold E. Mitzel, "Measuring Classroom Behavior by Systematic Observation," *Handbook of Research on Teaching*, ed. N. L. Gage (Chicago: Rand McNally and Company, 1963), pp. 288-303.

[17] Bob Burton Brown, *Teacher's Classroom Behavior* (Gainesville, Florida: Teacher Competence Research Project, College of Education, University of Florida, undated). (This is a group of instruments for use in evaluating a teacher.)

The category approach offers the advantage of accounting more thoroughly for behavior along a given dimension. To employ it, however, the number of categories must be limited so that the observer can keep them all in mind simultaneously and categorize observed behavior instantly. On the other hand, the sign system allows for a wider range of behaviors to be included. It does not, however, provide information as to the relative frequency of the behavior. Both systems are applicable to programs for the evaluation of teaching employing either process or product measures, provided, of course, that the relevant behaviors are defined and included in the list of categories used. The training of observers is necessary with sign and category observation systems just as it is with rating systems.

Can Pupil Test Scores Be Used to Evaluate Teaching?

If product measures are to be used to evaluate teaching, the place of testing is obvious. Testing is a procedure which is used universally by teachers and administrators for assessing pupil learning. These educators, however, have been generally unwilling to use the results of such assessments as a basis for evaluating teaching. Their reasons might be summarized with two statements: (1) There are many factors which act before, during, and after a teacher's teaching which affect the amount of learning which takes place within any given individual; and (2) The tests which are available may not represent the full range of objectives toward which the educational program is directed.

The second criticism has been answered to a certain extent by two volumes of the *Taxonomy of Educational Objectives*.[18] While the necessary evaluation instruments may not be immediately available, it appears that it would be possible to develop them if the specific objectives can be articulated.

The first objective raises some technical problems which are even more complex. Before these technical problems can be handled, however, a rationale must be developed which will serve as the basis for developing an equitable approach for using test scores. It does not seem reasonable to assume that the best teacher is the one whose pupils earn the highest scores; it could be that scores earned by some classes would be higher before the term begins than the scores which might be earned by other classes at the end of the term. There are also considerable problems in using gain scores (i.e., differences between pre-test and post-test scores earned by pupils.

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[18] Benjamin S. Bloom (ed.), *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain* (New York: David McKay Company, Inc., 1956); David R. Krathwohl, *et al.*, *Taxonomy of Educational Objectives, Handbook II: Affective Domain* (New York: David McKay Company, Inc., 1964).

It is difficult to say whether an average gain of ten points earned by a class whose initial scores were well below the mean is comparable to an average gain of ten points earned by a class whose initial scores were well above the mean. In order to cope with this problem, many modified approaches have been suggested for deriving measures of pupil gain.

If test scores are to be used to evaluate teaching, the basic need is to develop a rationale and a method which would provide an index of the amount of gain which each individual pupil would normally be expected to make in each of the areas deemed significant in a given class. It would then be possible to compare the observed gain with the expected gain. A teacher whose pupils gained more than they would normally be expected to gain would be considered "above average." One whose pupils gained less than they would be expected to would be "below average." One whose pupils gained the amount which would normally be expected would be "average." It would be necessary, of course, to take numerous factors into consideration when calculating the expected gains for each pupil. These factors would include such variables as general aptitude, special aptitudes, prior knowledge, and motivation. It might be concluded that arriving at an objective estimate of the expected gains of each pupil is a problem even more complex than the problem of evaluating teaching. Nevertheless, this seems to be the only reasonable basis under which gain scores could be used as the primary basis for evaluating teaching.

Chapter XI

Aides for Classroom Teachers*

DURING the past two years, the practice of employing teacher aides—auxiliary personnel whose function is to assist teachers—has become widespread in the State of Florida. This movement has been encouraged under the assumption that relieving teachers of various routine chores will allow them more time to engage in the professional activities for which they are uniquely qualified. Thus, the utilization of teacher aides represents an attempt to help teachers to do more for learners.

The teacher aide movement can be viewed in the same context as a number of other efforts which have been initiated to make teachers more effective. These include the expansion of teacher education programs, the establishment of supervisory positions, the instituting of inservice education programs, the development of text and supplementary materials, and the invention of audiovisual aids. While these types of devices and services are widely recognized as being beneficial, their true value evolves from the methods by which they are implemented. Each must be appropriate for the situation in which it is applied.

***The following Florida professionals served on the committee which prepared the text of this bulletin, first issued by the Florida State Department of Education, and reproduced here by permission.**

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Likewise, teacher aides do not by the mere fact of their existence constitute a significant impetus to effective teaching. The tasks which can be appropriately performed by aides must be defined. This calls for an analysis of the role of the teacher as well as that of the aide. Once the duties of aides are defined, it is necessary to locate candidates and to provide the necessary training and orientation so that they can perform these duties.

Why This Bulletin Was Written

While teacher aides have been employed for many years in a very few schools, it is only recently that their use has come to be widespread. Thus, it was only recently that the concept of teacher aides has entered the thinking of many people in education. This bulletin was written to convey a general concept of the role of the teacher aides. This should serve as a starting point for more refined analyses of the roles of both teachers and aides.

The project of developing this bulletin was undertaken at this time because it was felt that there are presently in Florida a number of people with the experience necessary to analyze and evaluate various aspects of the teacher aide problem. Now that teacher aide programs have been launched, it is time to reflect on their strengths and their weaknesses and to search for principles which can serve as guides for utilizing teacher aides to bring out more effective teaching.

The Scope of This Bulletin

Many kinds of aides are now working in Florida schools on both a paid and voluntary basis. These include clerical aides, library aides, and social worker aides, as well as aides who work with teachers in the classroom. This bulletin relates specifically to paid nonprofessional aides who work directly with teachers in the classroom. It is probable, however, that many of the statements made herein will apply to other types of aides also. Nevertheless, the goal in preparing the bulletin was to delimit its topic to apply directly to the type of aide which is most numerous.

BACKGROUND OF THE TEACHER AIDE MOVEMENT

Recent information from over the state and nation has indicated there is wide use of auxiliary nonprofessional personnel assisting instructional personnel in their over-all tasks and responsibilities. Teacher aides are functioning at all levels of education from pre-school programs to reading laboratories in special secondary school programs. They have assisted social workers in migrant education programs and have helped bridge the gap in classes at all levels where teachers are concerned with the educational culturally disadvantaged children. Nonprofessionals are making their presence felt in most facets of the educational world.

The Economic Opportunity Act of 1964 and the Elementary and Secondary Education Act of 1965 have made a great impact in the field of education over the nation. The programs under the Economic Opportunity Act have placed priority on pre-school programs and the Elementary and Secondary Education Act has placed emphasis upon additional efforts in regular on-going school programs. Both Acts have encouraged the use of additional personnel to increase individualized instruction and to provide additional time for the professional to plan to develop improved educational programs for pupils. The existing teacher shortage also prompted acceptance of the idea of utilizing services of nonprofessionals in the classroom for selected activities. It can readily be seen that new ways of utilizing nonprofessionals create new roles and responsibilities for the instructional staff.

There have been questions by many educators over the years regarding the extent to which nonprofessionals can function effectively in the classroom. Very little research and study have been done in the field of using the services of nonprofessionals in the classroom. It would seem that if and when the role and function of classroom aides are well defined and pursued under proper and adequate supervision, the quality of the educational programs will be greatly enhanced.

WHAT TEACHER AIDES ARE DOING

Aides vary in their functions among instructional levels. Pre-school programs utilize aides differently than elementary and secondary school programs. The role and function of aides is dependent upon (1) the instructional or grade level, (2) the type of instructional organization, (3) the individual teacher's perception of aides' uses and functions, and (4) the cultural background of pupils served.

Duties normally performed by teacher aides can be classified into four categories: "child care," "assisting in materials," "clerical-housekeeping," and "teaching activities." The following are examples of activities in these categories.

CHILD CARE

1. Assists in toilet and lavatory activities.
2. Assists in lunchroom activities.
3. Assists in bus duty.
4. Helps child who becomes ill.
5. Keeps check of assigned pupil duties, such as: monitors, patrol boys and girls, etc.
6. Sees that wraps and work are taken home.
7. Assists in supervising rest periods.
8. Takes children for milk break.
9. Assists in morning yard duty.

ASSISTING IN MATERIALS

1. Checks out and operates audio-visual equipment.
2. Locates and obtains materials for use in science experiments.
3. Obtains free and inexpensive materials available in community.
4. Prepares flannelboard stories and instructional materials.
5. Assists in getting materials ready for teacher to use with pupils.
6. Helps to process new books and materials.
7. Assists in making of teaching aids.
8. Helps set up class experiments.
9. Assists in preparation of bulletin board materials.
10. Assists in preparing games and puzzles.
11. Assists teacher with visual aids.
12. Prepares and draws transparencies.

CLERICAL-HOUSEKEEPING ACTIVITIES

1. Keeps the classroom attractive.
2. Takes lunch count and collects lunch money.
3. Takes care of all cash receipts.
4. Does any necessary typing.
5. Requisitions classroom supplies.
6. Helps keep pupils' health records.
7. Helps keep record information in cumulative guidance folders.

TEACHING ACTIVITIES

1. Listens to reading groups.
2. Cares for pupils when teacher is out of the room.
3. Assists pupils in follow-up assignments given by teacher.
4. Assists teacher in working with slow learners.
5. Assists with drill work with groups (such as phonics skills, etc.).
6. Helps individuals who were absent to make up work.
7. Reads stories and poetry to the class.
8. Assists in maintaining good order in the classroom.
9. Assists in correcting pupil papers.
10. Assists students with notebooks and making creative folders.

In school settings where teachers have primary responsibility for the over-all development of children, as in pre-school and elementary programs, teachers are using aides in activities to a large extent in ''pupil contact'' activities. Teachers in secondary schools use aides in the more indirect activities such as clerical and materials assistants.

Secondary school personnel seem to suggest that aides should function in supportive capacities that will directly **aid the teacher** in ancillary tasks which free and support the teacher for planning and instruction. The pre-school and elementary teachers utilize their aides to a large extent to **aid the pupil** in direct ''pupil contact'' activities so the teacher can individualize his planning and instruction.

THE NEED FOR TEACHER AIDES

Three principal points underlying the need for teacher aides are:

1) Teacher aides are necessary in the classroom to enhance the development and utilization of the teachers' professional competencies.
2) Teacher aides are necessary in the classroom in the division of labor to professionalize more fully the task of teaching. Professions today have a large place for technicians and para-professionals.
3) Quality education can be better achieved when aides are utilized under supervision in a cooperative manner in the teaching-learning situation.

Teachers have been asked to be and do all things in the classroom. Apparently, their professional role has not been very clear. Professional talents have been wasted too often on nonprofessional tasks. For the first time attention is being given to the fundamental role of teachers and relieving them of tasks that really are not theirs.

Other professions have long since developed a graduation of activities and tasks and have produced and trained the manpower to meet the demands at the various levels. The value of specific educational tasks must not be minimized as aides, when properly used, may produce the desired goal–the improvement of professional teachers' performance.

Very often teachers enter the profession filled with idealism but rapidly lose their enthusiasm and curiosity in the trivia of everyday details. Should the guidelines of other professions be followed, greater significance will be assigned the primary professional aspect of teaching–decision making. The distinguishing characteristic of a qualified teacher is his ability to analyze the instructional needs of learners and to prescribe what best meets those needs.

The major idea in the use of teacher aides must be to strengthen the teacher's effectiveness in terms of educational services to the learner by relieving the teacher of the many time-consuming tasks which may be done as well by a cadre of nonprofessionals. This will produce realistic economy in education and will make long strides toward professionalizing the status of teachers. Teaching is the last major profession using a "frozen" manpower pattern with no system of incentives whereby rewards are adjusted to ability and performance.

The noncertificated members of the teaching team are employed to do service jobs. They carry out mechanical and other functions so that the teacher can devote full-time to planning and instruction. They do not originate, create or develop policy; they carry out the agreed-upon program, assisting and strengthening the professional teacher.

Teachers have made significant progress in defining the role of teacher aides and will even further delineate proper aide functions. We are just beginning to examine the unique qualities of our professional teachers and how they may utilize auxiliary personnel.

SOURCES OF TEACHER AIDE PERSONNEL

Teacher aides represent a variety of personalities from varied walks of life. Each community has its own best source. However, when selecting aides the following might be helpful:

- Check with the local high school for promising young people who want to go to college, but need to work a year or more.
- Key persons from local service clubs and community organizations if employed often draw additional services and community support for local schools.
- Retired teachers and/or military personnel should be considered.
- Local church nursery workers and teachers of children's classes are usually people with a real love for children.
- If the school district serves a deprived or other special group, aides selected from that neighborhood may help the staff relate to these children and their families.
- Returning Peace Corps volunteers have much to offer a school.
- A junior college or college graduate or a certified teacher who does not want full-time employment may consider part-time aide work in a school.
- Applicants can often be obtained from substitute teacher files.
- Employment agencies can sometimes find suitable candidates and include an initial screening as one of their services.

Teacher Aides Need Training

To employ aides and simply assign them to a classroom is an injustice to them and to the teachers to whom they are assigned. Both groups need to be informed about their responsibilities and duties. Both groups have to reach an understanding of the proper utilization of aides. Hence, some pre-service training is necessary for teachers and aides. Whether this takes the form of an orientation program, a workshop, an institute, or informal conferences will depend on the size of the groups of teachers and aides. The development of an effective training program requires the combined efforts of administrators, supervisors, and teachers. Universities, colleges, and junior colleges must also be involved, either directly or indirectly, in the training of aides and the teacher-recipients of aides.

There is some basic knowledge which an aide should have so as to feel that he is an integral part of the educational system and the school. The aide should be given an overview of the educational goals of the system and the organizational structure needed for facilitating the attainment of these goals. The aide should also be made aware of the goals, organization, and services of the school to which he is assigned. System-wide personnel as well as school building personnel should comprise the instructional staff in this phase of the pre-service training of aides.

In addition, there are certain skills that have been classified as essential or basic for all aides regardless of the grade level or subject area to which they will be assigned. These skills include administering and grading objective tests, recording grades and attendance, preparing visual materials, operating and taking care of audio-visual equipment, filing tests and student assignments, supervising bulletin board displays, and typing reports. Many of these skills require cooperation from the junior colleges in terms of workshops or institutes for instructing the aides, or require the use of exceptionally skilled elementary or secondary teachers as instructors for the aides. The depth and duration of the skills program for aides will depend on the competencies and skills which the aides bring with them, and on the competencies needed for starting on their specific assignment.

In addition to attaining the necessary competency in general and specific skills, the aides should have some basic knowledge about student behavior. In many cases this knowledge can be gained through courses in child psychology and adolescent behavior taught by instructors from a junior college.

The major portion of inservice training which the aides receive on the job depends mostly on the teachers who have the responsibility for using the services of the aides. As the year goes on the supervising teacher will have to indicate those skills which need improvement, and will have to suggest the steps to be taken.

Hopefully, many aides will become so involved and interested in the educational processes that they will aspire to be teachers. If they have ability to perform satisfactorily in college work, they should be encouraged to strive for attaining the goal of professional teacher. Some recognition of the training received as aides should be given by the teacher-training institutions. Junior colleges involved in the training of aides should design and offer courses which meet the standard for college credit and can be included in a program leading to the teaching degree in institutions of higher education. The development of programs of this type require the cooperation of junior colleges and the senior institutions of higher learning.

SPECIAL ASSISTANCE FOR TEACHERS WHO SUPERVISE AIDES

Since another "adult" has become an intregal part of the classroom and the teacher has the added responsibility of giving direction to this adult, it is certainly appropriate to consider an inservice program for teachers which deals with the effective use of aides. This program might include a course similar to those offered by universities and colleges for supervising teachers of student teachers. However, this course would relate specifically to directing the activities of teacher aides instead of neophyte professionals.

The importance of developing harmonious working relationships between teachers and aides cannot be overemphasized. Understanding and communication are necessary if aides are to fulfill their necessary functions without at the same time imposing unnecessary burdens upon teachers. The relative contributions of selection processes and training procedures in bringing about this harmony cannot be delineated. It seems reasonably certain, however, that teachers can profit from orientation programs and other carefully planned experiences designed to help them to become more effective supervisors of aides. Harmony is more likely to result if both the teacher and the aide make an effort to adjust to the demands of the "team" situation. Special assistance for teachers, as well as aides, can facilitate this adjustment.

Unanswered Questions

Innovation–a key word of our times–is a central term in education. It has been said that the only permanent thing in today's world is **change**.

AIDES FOR CLASSROOM TEACHERS

The utilization of teacher aides in schools has made an impact on education. Numerous changes have taken place and problems have evolved. Questions have been raised and solutions to these questions have been attempted. As some of the issues have been resolved, new questions have appeared. There seems to be a continuous cycle of questions, answers and new questions. There is a need for study, research and a sharing of ideas concerning the use of teacher aides to enhance the teaching-learning situation. Some of the questions and issues which need attention are stated below.

1. Who will establish criteria for the selection of teacher aides? Will these criteria be specific enough to insure success and remain flexible enough to be used on a state-wide basis?
2. Should a hierarchy of teacher aide classifications be developed?
3. What is the legal status of teacher aides?
4. Should there be certification for teacher aides? What effect would certification as an aide have on personnel who have a desire to become certified teachers?
5. What criteria will be used to determine pay scale of aides?
6. Who should set up criteria for the evaluating of teacher aides? Who should evaluate?
7. How can training programs be made flexible enough to provide for individual needs in various categories yet specific enough to be practical and useful?
8. How may teacher aides maintain unity? Would some type of association and/or organization be of value? What types of instruments may be used to keep lines of communication open?
9. What are the assumptions about the effect of aides on the improvement of learning?
10. How will the use of auxiliary personnel be affected by research?
11. Will the use of teacher aides have an effect on the design of school physical facilities?
12. Should every teacher have an aide? Should a teacher be forced to work with an aide? Should priority be given to beginning teachers or to the more skilled, experienced teachers who may have deeper professional dimensions? Should there be the same number of aides for each teacher? Do certain tasks require more aides than others? Who should determine the ratio?

13. What effects will the increased use of teacher aides have on programs of teacher education?
14. What procedures might be used in order to acquaint and keep the public informed about the use of auxiliary personnel in educational programs?

BIBLIOGRAPHY

BOOKS

Abraham, Willard. *A Time for Teaching*. New York: Harper and Row, 1964.

Bair, Medill and Woodward, Richard G. *Team Teaching in Action.* Boston: Houghton Mifflin Co., 1964.

Beggs, David W. *Team Teaching—Bold New Venture.* Bloomington: Indiana University Press, 1964.

Brown, B. Frank. *The Nongraded High School.* Englewood Cliffs, N. J.: Prentice-Hall, 1953.

Bush, Robert N. and Allen, Dwight W. *A New Design for High School Education.* New York: McGraw-Hill Book Co., 1964.

Davis, Frederick B. *Utilizing Human Talent.* Washington, D. C.: American Council on Education, 1947.

Fine, Benjamin and Fine, Lillian. *How to Get the Best Education for Your Child.* New York: G. P. Putnam's Sons, 1959.

Ross, Donald H. and McKenna, Bernard. *Class Size: The Multi-Million Dollar Question.* New York: Teachers College, Columbia University, 1955.

Smith, Elmer R. (Ed.). *Teacher Education: A Reappraisal.* New York: Harper and Row, 1962.

Wooding, Paul and Scanlon, John. *American Education Today.* New York: McGraw-Hill, 1960.

ARTICLES

Alice, Sister Mary RSM and d'Heurle, Adma. "New Ventures in School Organization: The Ungraded School and Use of Teacher Aides," *Elementary School Journal,* Vol. 57 (February, 1957), pp. 268-71.

Bartlett, D. B. "Non-Teaching Assistants: A Southend Experiment," *Times Educational Supplement,* No. 2615 (July 2, 1965), p. 29.

Bates, Lorna D. "Need Extra Hours?" *Minnesota Journal of Education,* Vol. 39 (May, 1959), p. 18.

Bay City, Michigan Experiment: A Cooperative Study for the Better Utilization of Teacher Competencies," Symposium, *Journal of Teacher Education*, Vol. 7 (June, 1956), pp. 100-53.

Beecher, George. "Educational Resources Project," *School and Society,* Vol. 85 (1957), pp. 130-1.

Bookout, Hamilton H. "Teacher Aides for Lunch-Hour Activities," *School Executive,* Vol. 78 (February, 1959), p. 136. Also in *Education Digest*, Vol. 24 (May, 1959), pp. 26-28.

Bowen, John J. "Methods for Better Utilization of Teacher's Professional Skills," *Elementary School Journal*, Vol. 56 (May, 1956), pp. 403-8.

Brannick, J. J. "How To Train and Use Teacher Aides," *Phi Delta Kappan*, Vol. 48 (October, 1966), p. 61.

Braun, R. H. and Steffensen, J. "Grouping, Acceleration, and Teacher Aides Experiments in Urbana Secondary Schools," *National Association of Secondary School Principals Bulletin,* Vol. 44 (January, 1960), pp. 305-15.

Brunner, C. "Lap to Sit On—And Much More!" *Childhood Education,* 43:20-23; September, 1966.

Christine, Mrs. Mark. "Parents Lighten the Load at Ohlones School," *National Parent Teacher,* Vol. 51 (May, 1957), pp. 32-34.

Clarke, Johnnie R. "Proposal for a Teacher's Aide Program: A Two-Year Program in a Community Junior College Can Fill a Vital Social and Classroom Need," *Junior College Journal,* 36:43-45; March, 1966.

Clement, Stanley L. "More Time for Teaching," *National Association of Secondary School Principals Bulletin*, Vol. 46 (December, 1962), pp. 390-7.

Cronin, Joseph M. "What's All This About Teacher Aides?" *California Journal of Secondary Education,* Vol. 34 (November, 1959), pp. 390-97.

Cutler, Marilyn H. "Teacher Aides are Worth the Effort," *Nations Schools,* Vol. 73 (April, 1964), p. 671.

Deason, John P. "What They Say About Teacher Aides," *School Executive*, Vol. 77 (December, 1957), pp. 59-60.

DeBernarlis, A. "New Challenge for Community Colleges," *Educational Screen and Audio-Visual,* Vol. 44 (December, 1965), pp. 34-5.

d'Heurle, Adma, and others. "New Ventures in School Organization: The Ungraded School and Use of Teacher Aides," *Elementary School Journal,* Vol. 57 (February, 1957), pp. 268-71.

Dunkel, Harold B. "Let the Shoemaker Stick to His Last," *School Review*, Vol. 63 (December, 1955), pp. 461-4.

Duval, Rolland G. "College Seniors Assist Teachers," *Clearing House,* Vol. 35 (November, 1960), p. 162.

Esbensen, Thorwald. "Should Teacher Aides be More Than Clerks?" *Phi Delta Kappan,* Vol. 47 (January, 1966), p. 237.

Eye, Rev. S. J. "Dixon Plan: Full-Time Paid Aides," *Catholic School Journal*, Vol. 59 (November, 1959), pp. 72-73.

Frankson, A. G. "Helena Reports on High School English Teacher Aide Program Under Title 1, ESEA," *Montana Education*, Vol. 43 (September, 1966), pp. 26-27.

French, John H. "Various Methods of Improving Staff Utilization in a Small High School," *National Association of Secondary Principals Bulletin,* Vol. 41 (April, 1957), p. 261-62.

Gleason, Eleanor M. "Lateral Extension for the Gifted Minds," *National Association of Secondary School Principals Bulletin,* Vol. 42 (November, 1958), pp. 94-97.

Grade Teacher. "Teacher Aides Are 'In'," (May-June, 1966), pp. 183-85.

Grade Teacher. "Teacher Aides: How They Can Be of Real Help," (February, 1957), p. 102.

Gray, Harold F. and Fynboe, C. T. "Teaching Assistants," *California Journal of Secondary Education,* Vol. 35 (April, 1960), pp. 246-49.

Grayson, Jan. "Teacher Aide: Mother," *Elementary School Journal,* Vol. 62 (December, 1961), pp. 134-8.

Greenshields, M. J. "Big Timber's Teacher Helper Plan," *American School Board Journal,* Vol. 104 (April, 1942), p. 20.

Hinmon, D. E. "Morris Experiments with College Students as Teacher Aides," *Minnesota Journal of Education,* Vol. 46 (April, 1966), pp. 17-19.

Howe, H. "Manpower Deficit: Rationale for Bold Action," *School Management,* Vol. 10 (August, 1966), pp. 57-59.

Howe, H. "Manpower Crisis: How 12 Districts Are Beating

It," *School Management,* Vol. 10 (August, 1966), pp. 47-56.

Hullfish, H. Gordon. "Teaching Aides: An Educative Opportunity?" *Educational Leadership,* Vol. 14 (March, 1957), pp. 381-3.

Johnson, Curtis and VanderHorck, K. "Non-Certified Laboratory Assistants Are Used to Extend Science Opportunities for Pupils at the Alexander Ramsey High School, Roseville, Minnesota, Second Year," *National Association of Secondary School Principals Bulletin,* Vol. 43 (January, 1959), pp. 12-48.

Journal of the Association for Supervision and Curriculum Development. "Innovations in Education, The Teacher Aide," (November, 1966), pp. 175-183.

Lilly, Dorothy B. "What To Do During a Coffee Break," *School and Community,* Vol. 47 (January, 1961), p. 12.

McCuskey, Dorothy, "Bay City Project," *National Education Association Journal*, Vol. 45 (May, 1956), pp. 284-85.

McDaniel, P. William. "Released Time, at No Extra Cost," *Ohio Schools,* Vol. 37 (February, 1959), p. 31.

McGlothlin, Don C. "Three Remedies for the Teacher Shortage," *American School Board Journal*, Vol. 135 (December, 1957), pp. 21-23.

Marks, Merle B. "Assistant Teacher," *Bulletin of the National Association of Secondary School Principals,* Vol. 48 (March, 1964), pp. 56-60.

Mary Alice, Sister. "Teacher-Aides: A Resource, Summary," *National Catholic Education Association Builetin*, Vol. 56 (August, 1959), pp. 309-11.

Mary Carola, Sister. "Working with Teachers' Aides," *Catholic School Journal,* Vol. 60 (September, 1960), pp. 58-59.

Mary Eugene, Sister. "Volunteer Teacher Aide Program," *Catholic School Journal*, Vol. 63 (January, 1963), pp. 34-36.

Mary Kenneth, Sister. "Teachers' Aides Really Aid," *Catholic School Journal,* Vol. 57 (September, 1957), p. 206.

Mary Lugidia, Sister. "Our Teachers' Aide Program," *Catholic School Journal,* Vol. 57 (October, 1957), p. 250.

Miller, W. W. "Clerical Help," *NEA Journal,* Vol. 52 (November, 1963), p. 32.

NEA Research Bulletin. "Teacher Aides in Public Schools," Vol. 45 (May, 1967), pp. 37-39.

National Elementary Principal. "Auxiliary Personnel in the Elementary School," Vol. 46, No. 6 (May, 1967), Entire Issue.

Nesbitt, William O. and Johnson, P. O. "Some Conclusions Drawn from the Snyder, Texas, Project," *National Association of Secondary School Principals Bulletin,* Vol. 44 (January, 1960), pp. 63-75.

Newcomer, Kenneth. "How Would You Like an Assistant Teacher?" *School and Community*, Vol. 50 (May, 1964), pp. 23-24.

Noall, Matthew G. and Wilson, P. "Paraprofessional Helpers in a Language Arts Program at the Logan City High School, Utah," *National Association of Secondary School Principals Bulletin*, Vol. 44 (January, 1960), pp. 172-77.

Overview. "Community Studies Teacher Aides," Vol. 1 (June 1960), pp. 77-78.

Overview. "Reader Aides for English Teachers," Vol. 1 (September, 1960), p. 18.

Park, Charles B. "Increasing Teacher Competency by Using Teacher Aides," *California Journal of Secondary Education,* Vol. 31 (November, 1956), pp. 383-88.

Plutte, William. "We Leave Teachers in Classrooms," *American School Board Journal*, Vol. 142 (March, 1961), p. 16.

Polos, N. C. "Teaching Team in Action," *Journal of Secondary Education,* Vol. 36 (November, 1961), pp. 414-19.

Rioux, J. W. "At the Teacher's Right Hand," *American Education,* Vol. 2 (December, 1965), pp. 5-6.

Rioux, J. W. "Here are Fourteen Ways to Use Non-Teachers in Your School District," *Nations Schools,* Vol. 76 (December, 1965), p. 42.

Sapp, Eugenia, "Staffing the School Clinic," *National Elementary Principal*, Vol. 37 (September, 1957), pp. 139-143.

Saunders, Jack O. L. and Sechler, H. "Student Teachers on the Classroom Team," *Elementary School Journal,* Vol. 61 (October, 1960), pp. 32-34.

Scanlan, W. J. "Increased Services of Master Teachers Assisted by Cadet Teachers and Clerical Help," *National Association of Secondary School Principals Bulletin,* Vol. 41 (April, 1957), pp. 265-67.

Schaick, Sally Van. "Composition-Reading Machine," *English Journal,* Vol. 49 (April, 1960), pp. 237-41.

Schiffer, Arthur R. "Use of Science Teams," *Science Teacher,* Vol. 28 (February, 1961), p. 31.

Schriuner, A. W. "Value of Teacher-Aide Participation in the Elementary School," *Arithmetic Teacher,* Vol. 10 (February, 1963), pp. 84-7.

Singer, Ira J. "Survey of Staff Utilization Practices in Six States," *National Association of Secondary School Principals Bulletin,* Vol. 46 (January, 1962), pp. 1-13.

Smith, Edward T. "Teacher Aides—Answer to a Mystery," *Catholic Educator,* Vol. 31 (January, 1961), pp. 360-371.

Stinnett, T. M. "Master Teacher in Every Classroom," *Educational Leadership*, Vol. 14 (April, 1957), pp. 435-40.

The Instructor. "Teacher Aides, The Indianapolis Plan May Lend Itself to Your School," (October, 1966), p. 31.

Thompson, Scott D. "Emerging Role of the Teacher Aide," *Clearing House,* Vol. 37 (February, 1963), pp. 326-30.

Tillman, Rodney V. "Providing Time for Teachers," *Educational Leadership*, Vol. 13 (February, 1965), pp. 295-98.

Turney, David. "Instructional Secretaries Improve Instruction," *American School Board Journal*, Vol. 140 (April, 1960), pp. 19-20.

Turney, David. "Study of the Classroom Use of Secretarial Help in the Public Schools of Davidson County, Tennessee," *National Association of Secondary School Principals Bulletin,* Vol. 44 (January, 1960), pp. 335-340.

Virginia Journal of Education. "More Schools Recruit Nonprofessionals to Ease Load on Teachers," Vol. 56 (April, 1963), p. 10.

Weisz, V. C. and Butler, H. J. "Training Teachers' Aides at Garland," *Junior College Journal,* Vol. 36 (April, 1966), pp. 6-7.

Wisconsin Journal of Education. "Teacher Aide Plan Has Questionable Value," Vol. 89 (October, 1956), pp. 52-53.

Witt, Mrs. Rose M. "Mothers Volunteer as Teachers' Aides," *Catholic School Journal*, Vol. 59 (September, 1959), pp. 68-69.

Woodbury, Roger M. "We Tap Our Human Resources," *American School Board Journal,* Vol. 135 (November, 1957), pp. 33-34.

Zook, N. G. "Menu: A Treat for Teachers," *National Parent Teacher,* Vol. 54 (June, 1960), pp. 29-31.

Appendix

Toward A Compact of States[*]

THE Multi-State Teacher Education Project was approved by the United States Commissioner of Education on March 10, 1966, though its beginnings occurred much earlier. In October 1964, M-STEP's forerunner, the Maryland Task Force on Teacher Education, was organized at the initiative of a member of the State Department of Education staff, and was charged with preparing proposals for improving teacher education in Maryland. A member of the Department of Education staff, who had proposed the committee and called it into existence, served as chairman.

During the period the Task Force was in operation, Public Law 89-10, the Elementary and Secondary Education Act of 1965, was enacted by the Congress. The Task Force, through contacts of its chairman with key personnel in the United States Office of Education, became interested in the possibility of an interstate project for improving teacher education. After the work originally set forth for the Task Force was completed with the submission of a state proposal for a new organization for student teaching, the group chairman, with the approval of the Maryland State Superintendent of Schools and the Assistant Superintendent of Certification and Accreditation, continued his contacts with United States Office of Education personnel, and awaited the establishment of guidelines for submission of special proposals requiring multiple state action, under Section 505, Title V of the Act.

In October 1965, a prospectus outlining an interstate project for improving teacher education was submitted to the United States Office of

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[*] Including Florida, Maryland, Michigan, South Carolina, Utah, Washington, West Virginia.

Education. The *raison d'etre* for the project was stated in part as follows:

> Teacher Education throughout the nation can benefit from intensive trial and experimentation in the areas of direct learning experiences at the pre-student teaching, student teaching, and post-student teaching levels.

After considering the prospectus the Division of State Agency Cooperation of the Office of Education agreed that Maryland should seek a grant for the purpose of assembling a planning group of representatives from other state departments of education, and for the employment of a temporary staff to coordinate the planning effort.

In November 1965 the Task Force chairman received the sanction of his committee for Maryland to sponsor and participate in a multiple state project, if and when the project could be implemented through Federal aid. In December of the same year, after securing approval of the Maryland State Board of Education, the Maryland State Department of Education invited six states to participate in an interstate cooperative effort to find new ways to improve selected aspects of teacher education. Florida, Michigan, South Carolina, Utah, Washington, and West Virginia accepted. At this point Maryland officials submitted a proposal to the Office of Education asking for a short-term planning grant. When this proposal was approved and funded, Maryland invited representatives from the six states to attend planning meetings in Baltimore in January and February 1966.

The Maryland State Department of Education also proceeded with the employment of a planning staff, including a faculty member of the College of Education at the University of Maryland, and a secretary, to assist in drafting the project proposal. Maryland's Supervisor of Higher Education and chairman of the Task Force group served *ex-officio* as director of the planning staff and as chairman of the January and February planning sessions in Baltimore. As a result of these meetings, which brought together representatives of the seven states, the planning staff was authorized to draft a final copy of the proposal and submit it to the individual states for consideration.

A two-day January session of state representatives and members of the U.S. Office of Education staff, along with the project planning staff, succeeded in drafting some general goals. The February sessions, attended by the state directors of teacher education and certification in the state departments of education as designated members of the Planning Board, with Office of Education staff and the project's planning personnel, further defined and sharpened each state's role in the multi-state oper-

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ation. At the February sessions, supplemented later by telephone conferences, correspondence, and discussion with representatives of the Office of Education who had assisted in the planning processes, leading roles of the states became clear. These were:

Florida: providing assistance to teacher education institutions and organizations by means of coordinated programs of research, institutional interaction and communication.

Maryland: establishing a center for laboratory experiences, through cooperative action by a local education agency, the University of Maryland, and the State Department of Education.

Michigan: improving laboratory experiences through the development of regional professional organizations throughout the state, coordinated by the State Department of Education.

South Carolina: improving inservice and preservice teacher education through television and the use of videotapes and processes.

Utah: improving laboratory experiences through the use of television and video processes, experimentation with teaching teams, and developing teacher education centers by local schools and the state universities.

Washington: developing improved teacher education programs through school-college cooperation with stress on merging preservice and inservice training.

West Virginia: developing a model center for the improvement of laboratory experiences.

On February 28, 1966, the final draft of the M-STEP proposal was submitted and on March 10 the project was approved by the United States Commissioner of Education.

PROJECT GOALS

Improvement of Laboratory Experiences and Use of Video Techniques

In the process of defining project goals, the authors of the February 25, 1966 document narrowed the teacher education improvement aim by adding the statement ". . . with emphasis on laboratory experiences in elementary and secondary schools."[1]

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[1] From Project Proposal of February 25, 1966, Item 11-A.

During the planning stages the seven states defined the nature of their M-STEP objectives. Maryland, Michigan, and West Virginia strongly embraced the laboratory experiences aspect of teacher education as their major thrust. Florida and Washington accepted a "strengthening teacher education" role. South Carolina and Utah dedicated their M-STEP sponsored efforts to the improvement of laboratory experiences with stress on experimental application of video processes and television. In defining their objectives the states recognized their responsibilities to assume dual roles: service to the individual state, and service to the compact of states.

Directions of project effort in experimentation with laboratory experiences and contributions which the application of television and video processes can make to teacher education, are explained in sections of Volumes I and II of *Teacher Education in Transition.*

Statewide Cooperation as a Goal: Role of the State Department of Education

It is especially significant that under Public Law 89-10 all projects funded by Title V were necessarily geared toward strengthening state departments of education. Moreover, a basic concept of the M-STEP planners embraced the thought that state education agencies are in a unique position to bring together the total resources of their respective states in a cooperative effort to benefit teacher preparation. This project viewpoint, which sometimes appears in M-STEP literature as "statewide programs for teacher education," was expressed in the original proposal as a goal statement "To strengthen the capacity of state departments of education . . . in the development of joint responsibility between local education agencies and teacher education institutions in the preparation of professional personnel."[2]

The concept of statewide planning, and the nature of the basic law which supported the project gave rise to statewide cooperative effort in developing teacher education programs, and led to the establishment of state M-STEP organizations which are described in Chapter 2 of *Teacher Education in Transition,* Volume I.

Multiple State Collaborative Action as a Built-In Characteristic of the Project

Materials released during the pre-planning and planning periods of

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[2] *Ibid.*

M-STEP (1965 and early 1966) include the following examples of an emerging climate for multiple-state operation which exhibits patterns of uniqueness in American teacher education.

> . . . The United States Office of Education is interested in a preliminary proposal in which several states may cooperate in setting up some sort of machinery for experimenting with new procedures, which, through objective and first-hand practical means, can develop those skills and practices necessary for effective teaching.[3]

A section from the original application for a grant for planning an interstate proposal, submitted by the Maryland State Department of Education to the Office of Education on December 3, 1965, voiced certain state and interstate operational philosophies which even then were being prepared for inclusion in the new Compact.

> Among the fifty states there is limited opportunity for inter-communication concerning common problems affecting teacher education. There is still less opportunity for professionals from the various state departments of education to meet in groups and to creatively develop plans for more effective state coordination and improvement. Thus, opportunities for mutual stimulation and helpfulness are totally inadequate. In effect, state boundaries tend to serve as barriers to the transmission of professional insights and practices.*

In January 1966 a statement prepared by the pro-tem director of the planning project, which was included in preliminary materials submitted to the Office of Education staff and mailed to representatives of the seven prospective member states, contained the following statements:

> The multiple-state nature of the proposed project, itself an innovation will facilitate the development of techniques to accelerate the diffusion of innovative practices across state lines. In a genuine sense, and in an organized way, states involved in the Compact will teach each other in processes of development along fronts which are believed to be significant to the states and to the nation. In this way, patterns of organized cooperation and

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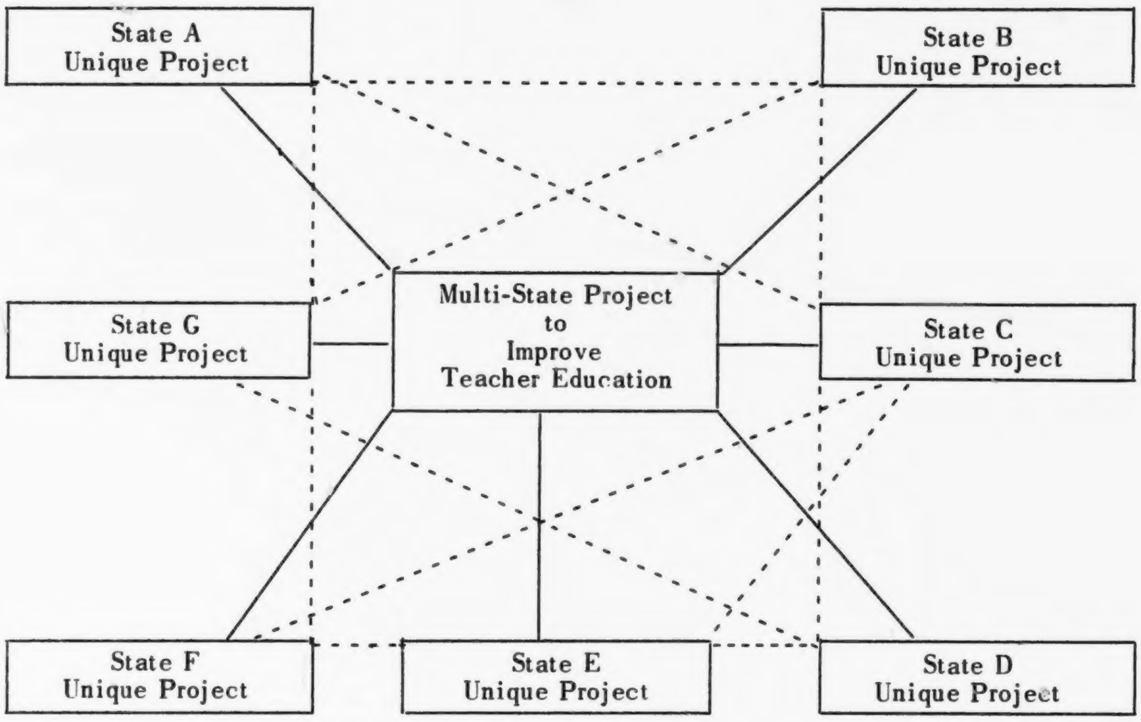
[3] *Minutes*, Maryland Task Force on Teacher Education, November 1965.

*Maryland State Department of Education, *Strengthening State Leadership Capacities for Improving Teacher Preparation*, an Application for a Multiple-State Planning Project, (Baltimore, December 3, 1965).

collaboration, which long have been functional in other aspects of American enterprise but have been relatively ineffective in educational circles, will become operational on an interstate basis.

The Compact expects to investigate means and media for use in the dissemination of information concerning the processes and outcomes of state and interstate projects. Examples of these means and media are newsletters, interstate observations and visitations by representatives of teacher education programs and other groups, the distribution of state bulletins showing project development, and carefully planned conferences.[4]

Schematic Diagram of Idea Diffusion and Cooperative Planning*



*Source: M-STEP proposal of February 25, 1966

--------- possible lines of cooperation

_________ all states work with and disseminate information to Multi-State Project.

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[4] From "A Preliminary Overview, Multi-State Teacher Education Project" (Baltimore: State Department of Education, January, 1966).

APPENDIX

As a result of consultations with staff of the U.S. Office of Education concerning requirements specified by the law, a memorandum prepared by the pro-tem director of planning and the associate director of planning[5] on February 11, 1966 for members of the project planning group in the seven states contained the guideline statements:

> . . . activities of the Compact must be experimental or innovative in nature, must possess significance for many or most states in terms of the experimental process and/or product, and must be activities in which the individual state cannot successfully engage except as a member of the Multi-State Compact. . . .
>
> The Multi-State project is expected to function as a unit rather than as seven discrete states.

Early in March 1966, a memorandum from the planning staff to the M-STEP Planning Committee (which later became the M-STEP Coordinating Board) contained the statement.

> However, this integrated effort of the states in a cooperative compact, with each state doing, as we wrote several weeks ago, ''something which it can do as a part of the Compact which it could not do alone'' is one of the three or four major concerns of the U.S. Office of Education for all Section 505 projects. Dr. Weaver and I gave attention to this, as did all of you, in making our final revision.
>
> Really, though, no written document can insure interstate operational adequacy. It remains, I suppose, for us to work this out cooperatively as we (a) progress further in launching the various state projects and (b) develop each of the state efforts in innovative activity.
>
> I really think we shall find each state's task easier and that each will go farther because the others are involved.
>
> It is good that we see this need and opportunity now. By so doing, we shall be better able to make best use of this built-in feature of the Compact.

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[5] H. F. Bosley and V. Phillips Weaver.

EARLY DIRECTIONAL MEETINGS

Following official approval of the project, M-STEP leaders began a series of meetings to set policy and plan directions. The first meeting of the M-STEP Coordinating Board was held on April 28, 1966. At this session, South Carolina and Utah invited representatives of all states of the Compact to attend a two-day meeting in their respective states during June and July of 1966. This April meeting of the Board was significant in that the pattern was established of inviting one or more representatives from each of the M-STEP states to attend a major state M-STEP session. This pattern was followed throughout the project's operation.

At this meeting, members of the Coordinating Board, each serving also as Director of his state's M-STEP operation, reported on long-term plans which were taking form in their states. The Florida plans for promoting institutional interaction and intercommunication were discussed. The Maryland experiment with a teacher education center at Kemp Mill school had reached its final planning stages and was ready for operation. Michigan's regional plan of state M-STEP organization for the development of standards and programs received elaboration, as did plans of South Carolina and Utah for experimentation with television and video processes in teacher education programs. Utah's interest in teacher education centers was also discussed. Washington's plans for unifying preservice and inservice teacher education were explained, and details relating to school-college cooperation were clearly revealed. Plans for West Virginia's pilot center for student teaching were reported under way through a broadly based statewide effort to include school and college personnel in the development of a prototype.

Reports of state plans at this April 1966 session revealed encouraging progress in the development of state and compact operation which had first been envisioned prior to and during the planning sessions of January and February, and rendered final in March of 1966.

On June 10, 1966, the first interstate invitational conference was held at Columbia, South Carolina; and on July 22-23, 1966, the second invitational conference was held at Park City, Utah. Additional meetings of the M-STEP Board were held in Florida (June) and in Utah (July). During this series of meetings in April, June, and July, the Board proceeded with the determination of operational policy for the project and members reported progress on plans for state and interstate operation.

On October 23-24, 1966, the M-STEP Board met at Baltimore and at the Maryland M-STEP Teacher Education Center at Kemp Mill School.

Board members reiterated the project's commitment to its long-term goals and reviewed progress of their respective states in the four major areas of M-STEP concern: laboratory experiences, video processes, intrastate organizations, and interstate cooperation.

THE M-STEP SYSTEMS TAKE FORM

If improvements were to be made in teacher education programs within the states of the newly formed Compact, it seemed axiomatic that professional personnel in the states' educational institutions and agencies should serve as resources for planning and initiating change. It seemed necessary that means should be provided whereby institutional representatives of each state's agencies which prepare, certificate, employ, and guide the welfare of teachers should participate equally in the process of developing designs for improvement.

With this in mind, tasks needed to be outlined, desirable changes required definition. Weaknesses needed to be assessed, and strengths analyzed. Means, both for overcoming weaknesses and building upon existing strengths, clamored for creative treatment.

New ways had to be found to utilize existing professional talents, wherever those talents were located. Those who created M-STEP probably thought that the most potent and effective source of development lay in the process of group planning and interaction within the seven states. In a real sense, the M-STEP task became one of harnessing existing professional forces for purposes of deliberate invention and development.

Concurrent with approval of the Multi-State Teacher Education Project Proposal on March 10, 1966, officials of the Division of State Agency Cooperation of the U.S. Office of Education who had worked with the M-STEP planners through the November 1965 – February 1966 period had submitted a summary statement of guideline significance. In part, this letter[6] referred to the nature and purpose of Title V of Public Law 89-10, with special stress on the characteristic requisites for operation of projects approved under this Title, and with special reference to regulations applying to the very limited number of multiple-state compacts which the Office expected to approve under Section 505 of Title V. The statement underscored and strengthened highly pertinent goals of the project. The following ideas were included:

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[6] March 7, 1966, Department of Health, Education and Welfare, Office of Education.

Increased stress must be placed on project activities which would involve all the participating states in attaining the objectives of the Compact.

Continued planning and development of activities for 1967, and beyond, should be held in line with originally stated objectives, but should provide for projection of activities beyond a continuation of programs begun during 1966.

Increased emphasis should be placed on expected outcomes such as:
- The utilization of videotapes,
- The dissemination of project findings to all states in the U.S.,
- The improvement of teacher education programs within and by the state education agencies.

At its October 1966 meeting, the Coordinating Board heard a review by the project director of directions and activities which were under way in the Compact. The minutes of the session contained references to this point as follows:

The M-STEP central purpose, as it emerged in the January-February conferences of the seven-state planning group and U.S. Office of Education representatives, broadly stated, was to improve teacher education. As stated in the original proposal, the problem read:

To strengthen the capacity of state departments of education to provide leadership in: (a) the development of joint responsibility between local education agencies and teacher education institutions in the preparation of professional personnel, with emphasis on laboratory experiences in elementary and secondary schools, and (b) the development in local education agencies of new programs in teacher education resulting from the Elementary and Secondary Education Act of 1965, P.L. 89-10.

The major objectives mentioned as a preliminary to reassessment by the M-STEP Coordinating Board at the October 1966 meeting are listed below.[7]

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[7] A. The improvement of laboratory experiences *via* "model" or "pilot" situations in the improvement of teacher education.

B. The production and use of videotapes and video processes as aids in teacher education, especially as supplements to direct experiences in the laboratory or clinical processes. These range all the way from tapes of lesson procedures to micro-teaching and self-evaluation aids, to short runs illustrative of significant instructional techniques with possible applications in information retrieval systems.

C. Goal three involves intrastate cooperative effort in teacher education. As a part of Title V, "Strengthening State Departments of Education," M-STEP has to remember its state (and possibly interstate) task of devising ways to utilize existing resources whereby organizations and agencies can cooperate in the development of improved education programs. This effort leads well beyond the usual certification and accreditation functions of state departments of education to their direct involvement (as organizers and catalysts, perhaps) in statewide development of teacher education programs.

D. The M-STEP position as a Title V project necessitates interstate reactions and highly innovative interstate cooperation. In addition to currently operating procedures, such as interstate meetings, advisory systems, and the Central Office publications, we need to remain alert for additional innovative efforts which can demonstrate the potential advantages to progress of several states working together.

(From *Minutes* of the M-STEP Coordinating Board, Baltimore, Maryland, October 24, 1966.)

It is significant that no suggestions were made by the Project Coordinating Board for modification of the four major objectives as originally developed in the planning processes of late 1965 and early 1966. Progress in the states was underway along lines prescribed by the design of the M-STEP project. The general consensus of the Board seemed to be one of agreement to the statement, "Major goals, originally agreed upon, must be adhered to, and action intensified in these directions."[8] This sentence was in reference to the four major tasks of the M-STEP project indicated in footnote

As early as January and February 1966, state assignments had been agreed upon by South Carolina and Utah to spearhead experimentation in the use of media in the improvement of teacher education, and by the remaining five states for direct collaborative experimentation in the improvement of laboratory experiences. It was agreed that the seven states would need to develop organizations whereby state departments of education, teacher education institutions, public schools, and professional organizations in each state would collaborate in the attainment of project goals. There also was acceptance in the same project proposal that extensive interstate collaboration must occupy a strong position in the Compact operation.

In summary, the M-STEP design which evolved through cooperative action late in 1965 and early 1966 embraced an avowed attempt to find new directions, even new horizons, in teacher education. The major thrust of this effort involved four concerns, which were (a) the development of innovative action in the area of laboratory experiences, (b) experimentation with and utilization of video processes and techniques, (c) the creation of new and effective state systems for improving teacher education and assisting those already in existence, and (d) to work effectively as a compact of states in the attainment of project commitments and goals.

As envisaged by the planners, concerns (a) and (b) reached deeply into the core of teacher education programs and curricula, whereas (c) and (d) embraced intermediate and long-range means of incubating group decisions, encouraging experimentation, and effecting changes in directions which are found to be essential.

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[8] *Ibid.*

Project Administrative Staff

I. The Coordinating Board

A. Personnel:
Directors of each of the state projects.[9] These individuals were listed "State Representatives" as indicated in Section A. Item 7 of the Project Proposal of 1966.

B. Appointment:
By the Chief State School Officer of each state of the Compact by letter filed with the U.S. Commissioner of Education.

C. Duties:

1. Formulate project policy[10]
2. Evaluate project outcomes[11]
3. Establish the Central Office of the Project[12]
4. Employ necessary staff for the Central Administration.[13]

II. Central Office

A. Personnel, Titles, Duties:[14]
Multi-State Project Director – Assumes major responsibility for coordinating and implementing plans for the national project; disseminating information; holding planning and evaluation conferences; reporting as scheduled to the U.S. Office of Education.

Associate Multi-State Project Director – Assists Project Director.

Secretary – Secretarial and clerical assistance.

B. Employment:[15]
The administrative staff to coordinate the Multi-State Project will be selected by the Coordinating Board comprised of the directors of each of the state projects.

III. State Project Staff

The State Project Director. This official is the state director or chief administrative officer of the division of certification, accreditation and/or teacher education, serving *ex-officio* as director of his state's activities in the Multi-State Teacher Education Project.

The State M-STEP Project Coordinator. In each state of the Compact this staff officer was employed or designated by the State Education Agency (State Department of Education or State Department of Public Instruction). In this capacity it was his responsibility to work under the direction of the State Department of Education head of teacher education and certification in organizing and coordinating the state's M-STEP project activities. The state project coordinators were not line officers of a seven-state organization.

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[9] Section B, Positions Projected, Item 16, *Project Application*, approved March 10, 1966, p. 28.
[10] *Ibid.* Section A. Item 13, p. 2.
[11] *Ibid.*
[12] *Ibid.* p. 5.
[13] *Ibid.*
[14] *Op Cit.* Section B, Positions Projected, p. 28.
[15] *Ibid.*

APPENDIX

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*Each member of the Coordinating Board was also Director of his State M-STEP Project.

**Consecutive Assignments.

† August, 1966-June, 1967.

‡ May, 1966-June, 1968.